LG
Life's Good

OWNER'S MANUAL

Video Management System

Please read this manual carefully before operating your set and retain it for future reference.

MODEL
LVi510

MFL67280213

1501 (V1.8)

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1 Introduction

The LG Video Management System is an IP-Surveillance software that works with the LG Video Server and LG IP cameras to provide video monitoring, recording setting and event management functions. The software has multiple search functions for recorded events. Remote viewing and playback are also possible with the use of the Video Management System.

This manual contains instructions on how to use and manage the LG Video Management System in your networking environment. Some knowledge of networking environments would be beneficial to the reader.

Should you require any technical assistance, please contact authorized service center.

Features

The LG Video Management System offers the following functions:

LG Management Server

- DB(Database) management
- User Authentication

Management Tool

- Device Finder
- Device grouping
- Multiple tree view
- Device Remote Setup
- Recording Server Setup
- User role & device access permission Setup
- Real-Time Recording Server Monitoring
- Map making & edition
- Recording Calculator
- Real-Time Streaming Server Monitoring
- Multiple device firmware update

Surveillance Client

- 256 Channels Live monitoring with video buffering
- Multiple playback at the same time
- Event recording search
- Instant playback
- Digital Zoom
- Camera Pan/Tilt/Zoom Control (mouse, joystick support)
- 2 Way(Bidirectional) Audio support
- Map support
- Layout Sequence
- AVI File export
- Event Log
- Intelligent Video analytics event detection
- Map and Event Live Popup Display
- LG IP Camera and DVR Support

Streaming Server

- 256 channels streaming
- Real-Time live streaming

Video Wall Server

- Multiple monitor setup
- 256 Channels Live monitoring with 4 monitors

Recommended PC Requirements

The LG Video Management System must be installed below operating systems for best performance and stability.

Server Requirements(Recording Server, Streaming Server, Management Server)

- Intel® Xeon® E5620 2.6 GHz or Higher
- 4 GB of RAM or Higher
- 500 GB of storage or more

Video Wall Server Requirements

- Intel® i7-880 3.07 GHz or Higher
- 8GB of RAM or Higher
- 100 GB of storage or more
- Radeon HD 7970 Graphics card

Client Requirements (Surveillance Client, Management Tool)

- Intel® i7-880 3.07 GHz or Higher
- 4 GB of RAM or Higher
- 100 GB of storage or more
- 4 GB PCI-E 2.0 X16 bus Graphics card with Microsoft® DirectX

Note:
Minimum requirements resolution is 1280X1024.

Operating System Requirements

- Microsoft® Windows 7 Professional or Ultimate 32-bit/64-bit
- Microsoft® Windows Server® 2008 Standard Edition SP2 32-bit/64-bit
- Microsoft® Windows Server® 2008 Enterprise Edition SP2 32-bit/64-bit
- Microsoft® Windows Server® 2008 Standard/Enterprise Edition R2 32-bit/64-bit
- Microsoft® Windows XP Pro SP2/SP3 32-bit/64-bit

Warning:
Disable or Turn Off UAC (User Account Control) in Control Panel. It supports the Auto Execution of Recording Server, Streaming Server and Management Server when Windows Server has been rebooted. Do not use a login password when windows server is rebooted because if you set the login password then the Recording server SW will not be restarted automatically in rebooting.

Before install the Video Management System

- The pictures used in this manual are based on Windows 7 Professional.
- Do not use other applications with this Video Management System program. This can cause memory shortage and program malfunction.
- Check that the LG IP Device is(are) connected to the network and that power is supplied.
- For more information on product installation, see the user manual of your LG IP device.

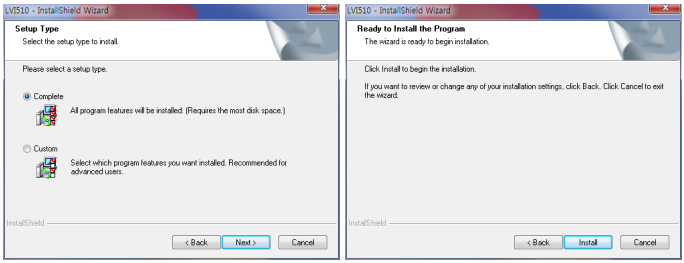
2
Getting Started

Install the Video Management System

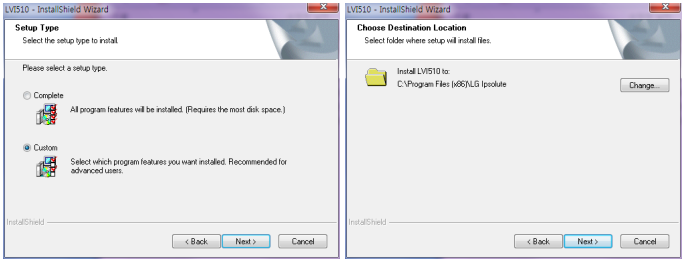
You can install the Video Management System software following steps.

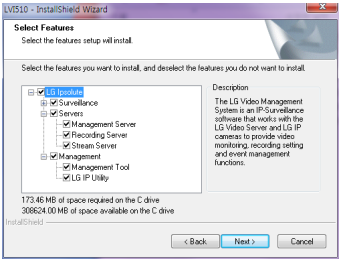
1. Insert the Program CD which will be started automatically.
   If the disc does not run automatically on your PC, open the Program CD and install the program manually.
2. Run the install file and install the programs to your computer following the on-screen instructions.

   2-1.Complete: Install the all program. (Management Server, Recording Server, Streaming Server, Management Tool, Surveillance Client, File Player, Export Viewer)


LVI510 - InstallShield Wizard
Setup Type
Select the setup type to install.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Select which program features you want installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel
LVI510 - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

   2-2.Custom: Select programs which you want to install. To additional installation and remove, run the setup file and then select the [Modify] feature.




LVI510 - InstallShield Wizard
Select Features
Select the features setup will install.
Select the features you want to install, and deselect the features you do not want to install.
LG Ipsolute
Surveillance
Servers
Management Server
Recording Server
Stream Server
Management
Management Tool
LG IP Utility
Description
The LG Video Management System is an IP-Surveillance software that works with the LG Video Server and LG IP cameras to provide video monitoring, recording setting and event management functions.
173.46 MB of space required on the C drive
308624.00 MB of space available on the C drive
InstallShield
< Back
Next >
Cancel

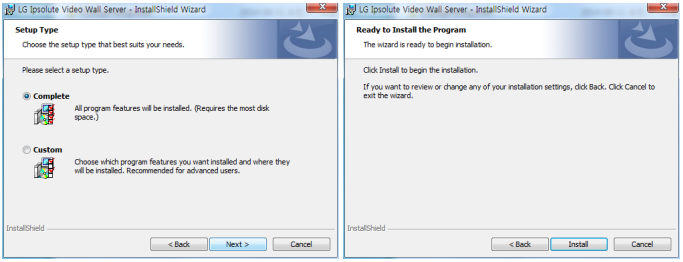
3. After finishing installation, you will find the programs in the start menu or on the desktop. If the program version is lower than 2.00.0052, it is recommended that you delete the existing file and then reinstall the program.

Install the Video Wall Server

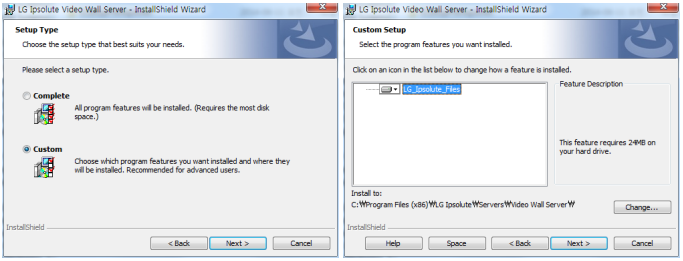
You can install the Video Wall Server following steps.

1. Open the Program CD and install the program manually.
2. Run the install file and install the programs to your computer following the on-screen instructions.

   2-1.Complete: All program features will be installed for normal user.


LG Ipsolute Video Wall Server - InstallShield Wizard
Setup Type
Choose the setup type that best suits your needs.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel
LG Ipsolute Video Wall Server - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

   2-2.Customer: Choose or adjust which program features you want installed and where they will be installed.


LG Ipsolute Video Wall Server - InstallShield Wizard
Setup Type
Choose the setup type that best suits your needs.
Please select a setup type.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel
LG Ipsolute Video Wall Server - InstallShield Wizard
Custom Setup
Select the program features you want installed.
Click on an icon in the list below to change how a feature is installed.
LG_Ipsolute_Files
Feature Description
This feature requires 24MB on your hard drive.
Install to:
C:₩Program Files (x86)₩LG Ipsolute₩Servers₩Video Wall Server₩
Change...
InstallShield
Help
Space
< Back
Next >
Cancel

3. After finishing installation, you will find the programs in the start menu or on the desktop.

Starting the Video Management System

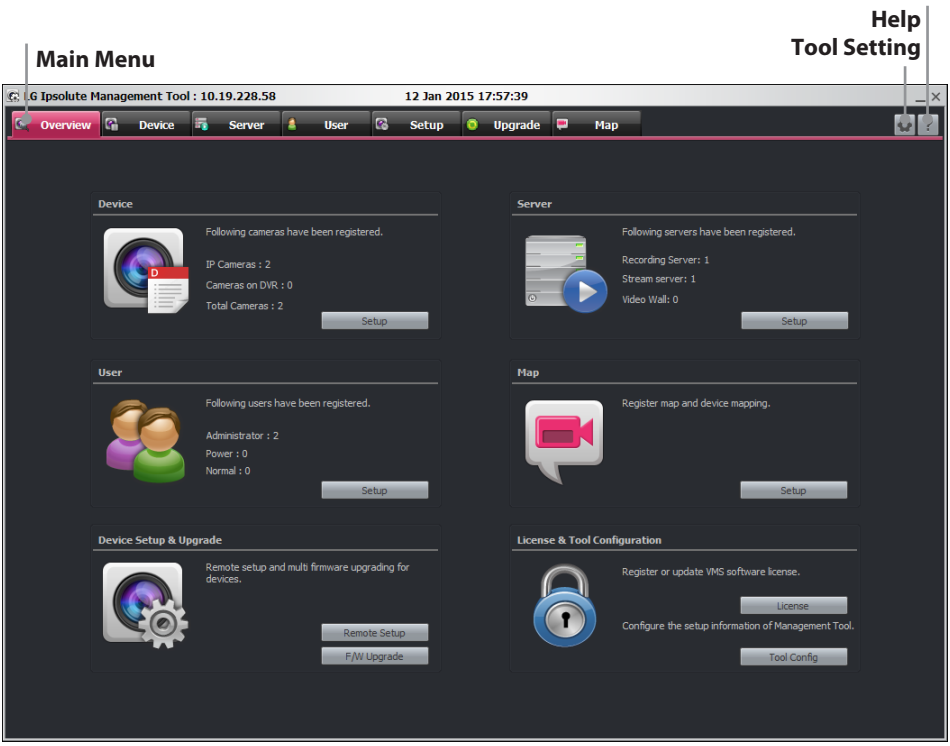
You can select and run the Video Management System program from your **Start>Programs>LG Ipsolute>LVi510** or click the **each program** icon on your desktop.

1. Run the Management Server.
2. Run the Recording Server.
3. Run the Streaming Server program. (Option)
4. Run the Video Wall Server. (Option)
5. Run the Management Tool program.
6. Run the Surveillance Client program.

Note:

Video Wall Server can not run with Surveillance Client in the same PC.

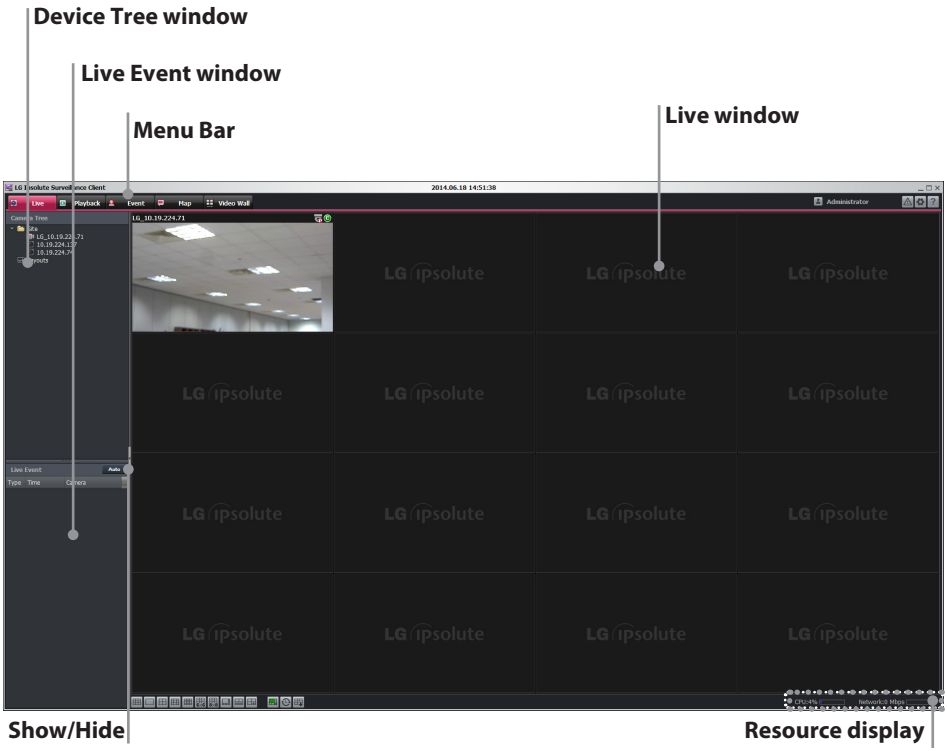
Management Tool Overview



Main Menu Bar

Menu	Description
Overview	Displays the Camera Overview window.
Device	Displays the Camera Registration window.
Server	Displays the Server Registration window.
User	Displays the User Registration window.
Setup	Displays the Setup window.
Upgrade	Displays the Upgrade window.
Map	Displays the Map Registration window.
Tool Setting	Displays the Tool Setting window.
Help	Displays the help.

Surveillance Client Overview



Menu Bar

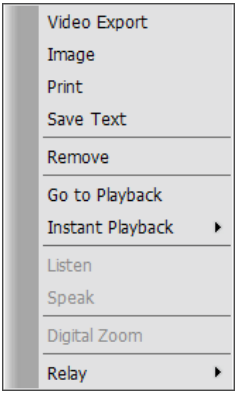
Menu	Description
Live	Displays the live view workspace.
Playback	Displays the playback workspace.
Event	Displays the event workspace.
Map	Displays the map workspace.
Video Wall	Displays the video wall workspace.

Icon Bar

Log	Display the system logs.
Client Setup	Displays the client setup window.
Help	Displays the help.
Screen Format	Change the screen format on the live view.
Hotspot	Displays the live view on the hotspot area.
Sequence	Displays the layout rotation's setup window.
Save Layout	Displays the layout save window.
Export	Displays the Export file Window.
Administrator User Information	Displays the user group.

Liveview Pop-up menu

Click the mouse right button on the desired live view channel. The live view pop-up menu is displayed.



- Video Export: Save the current screen as video file.
- Image: Save the current screen as image file.
- Print: Print out the current screen by printer.
- Save Text: You can save the text event. The saved event can search in the [Event] tab.
- Remove: Select to remove the selected device on the view.
- Goto Playback: You can playback the selected screen as new window.
- Instant Playback: Just the time(second) ago to play recording data.
- Listen: Listen to audio from device.
- Speak: Speak for sending audio into device
- Digital Zoom: Enable digital zoom on images.

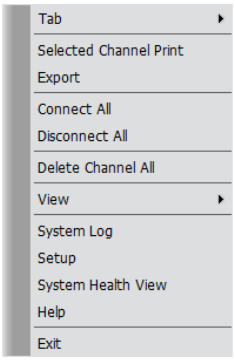
  Note:

  Digital Zoom function can operate only 1 split mode.

- Relay: Select On or Off to turn on or off the relay function of camera.

Main Frame Pop-up menu

Click the mouse right button on the title bar of [Surveillance Client]. The main frame pop-up menu is displayed.



- Tab: Select to main menu. You can move to each tap. (Live, Playback, Events, Emap) Select each menu of New window to open the additional window. The [Video Wall] option is not supported open a new window.
- Selected Channel Print: Print out the selected channel by printer.
- Export: Exports the Data
- Connect All: Select to connect all device.
- Disconnect All: Select to disconnect all device.
- Delete Channel all: Select to remove the all channel on the view.
- View: Click the Tree Show/Hide option to dispread or close the tree. You can see the image of channel as full screen by selecting Full Screen option. If you want to escape the full screen mode then push "ESC" button on the keyboard.
- System Log: Display the system logs.
- Setup: Displays the client setup window.
- System Health View: Displays the status of Server, HDD and connected devices.
- Help: Displays the help.

Show/Hide button

You can show and hide the Camera tree window, Map tree window and Live Event window at once to click Show/Hide button.

Resource Display

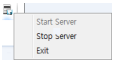
Menu	Description
CPU	Displays the current CPU usage of client.
Network	Displays the current Network usage of client.

Live window icons

Icons	Description
	Displays when the PTZ device is connected.
	Displays when the audio function is activated in the network device.
	Indicates Continuous recording.
	Indicates sensor recording.
	Indicates motion detection recording.
	Indicates va event detection recording.
	Indicates instant recording.
	Displays when the audio input function is available in the network device.
	Start Instant Playback. This function is playback previous 1 minute image.

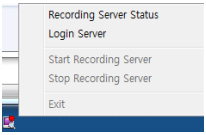
	Pause playback.
	Stop Instant Action. (Playback, Recording)
	Play backward or forward by double speed.
	Start Instant Recording.
	Enable PTZ Control Mode.
	Indicates OSD control menu of camera.

Management Server Overview

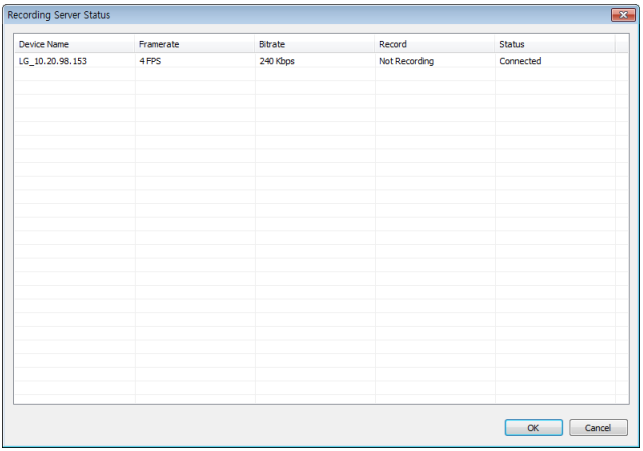


When you start the management server, management server icon is displayed on the task bar. Click the icon to start or stop server.

Recording Server Overview

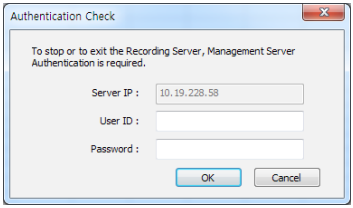


1. When you start the recording server, recording server icon is displayed on the task bar. Click the icon to start or stop server. If you click the Recording Server Status, the Recording Server Status window is displayed.



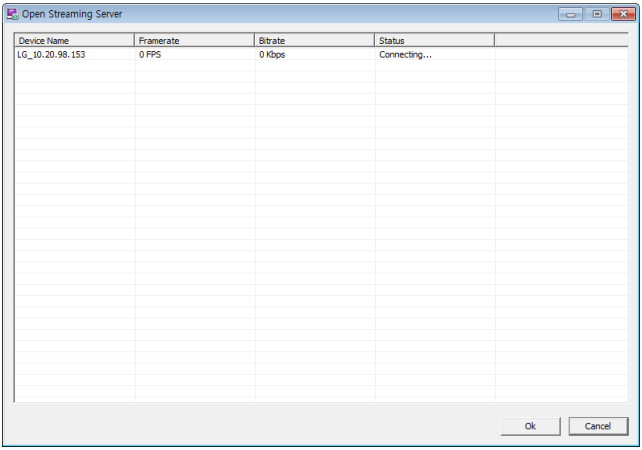
- Device Name: Displays the Camera name.
- Framerate: Displays the frame rate. The frame rate is the number of transportable frames per second.
- Bitrate: Displays the Bit rate value.
- Record: Displays the recording status.
- Status: Displays the connection status.

2. To stop or exit the Recording server, Management Server Authentication is required. Click the [Login Server] option. The [Authentication Check] window is displayed.

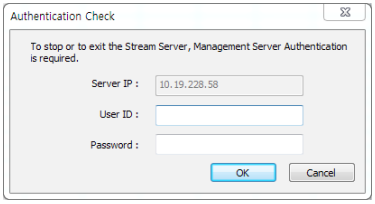


3. Enter the [User ID] and [Password] and then click the [OK] button. The [Stop Recording Server] and [Exit] option is activated.
4. The login is logged out after 1 minute.

Streaming Server Overview



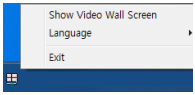
1. When you start the streaming server, streaming server icon is displayed on the task bar. Click the icon to start or stop server. If you click the Open streaming Server, the streaming Server Information window is displayed.
   - Device Name: Displays the Camera name.
   - Framerate: Displays the frame rate. The frame rate is the number of transportable frames per second.
   - Bitrate: Displays the Bit rate value.
   - Status: Displays the connection status.
2. To stop or exit the Streaming server, Management Server Authentication is required. Click the [Login Server] option. The [Authentication Check] window is displayed.



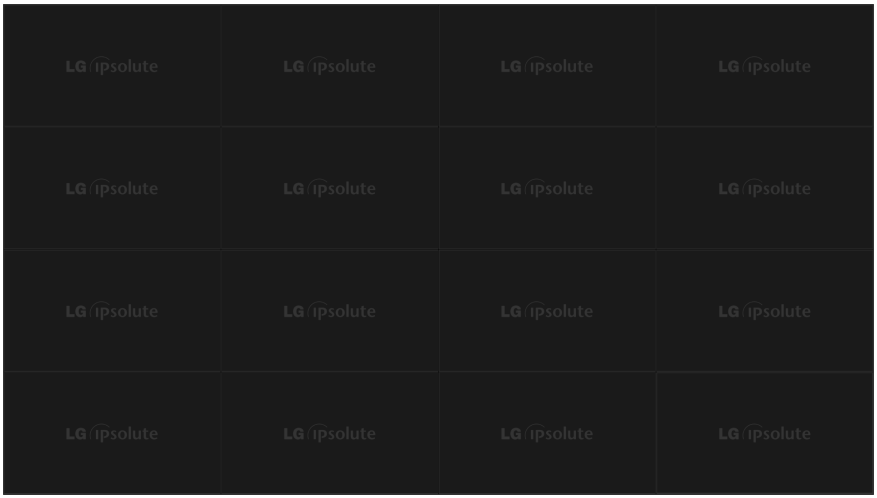
3. Enter the [User ID] and [Password] and then click the [OK] button. The [Stop Streaming Server] and [Exit] option is activated.
4. The login is logged out after 1 minute.

Video Wall Server Overview

1. Run the video wall server. The video wall server icon is displayed on the task bar.



2. Click the icon.
   - Show Video Wall Screen: Click the option. The video wall screen is displayed to full screen. To return your desktop, press ESC key.



   - Language: Select the language from the [Language] tab.

3
Operation and settings

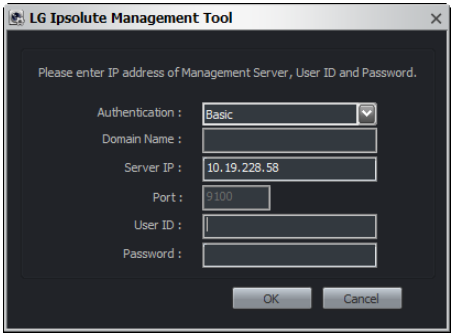
Using the Management Tool program

The first time Management Tool is started, you should register a LG IP camera and Server(s) to control it by the Video Management System.

Note:
The computer running Management Tool must be on the same network with device.

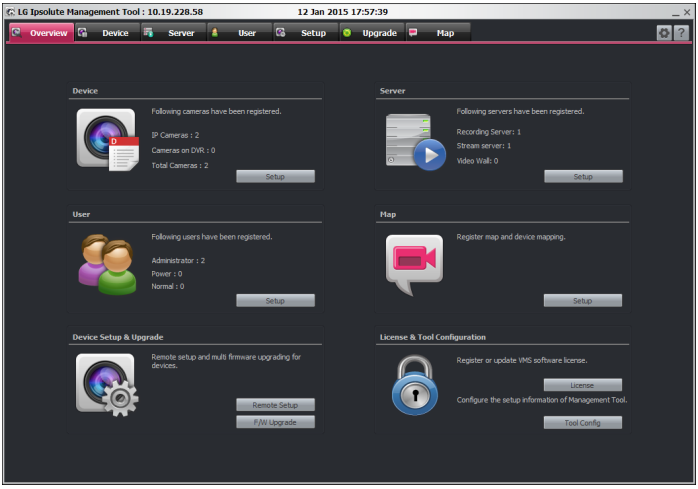
Starting the Management Tool Program

1. Run the Ipsolute Management Tool program. To launch Management Tool program, select Management Tool from your **Start > Programs > LVI510 > Management Tool** or click the Management Tool icon on your desktop. The Management Tool login window is displayed.



2. Select [Basic] or [Windows Authentication] from the [Authentication] option.
3. Enter the [Server IP], [User ID] and [Password]. In the case of [Windows Authentication], you can only use PC in which is logged relevant account, and you don't need to password.
4. If other PC is logged in management server, you can log in read-only mode.

Using the overview window

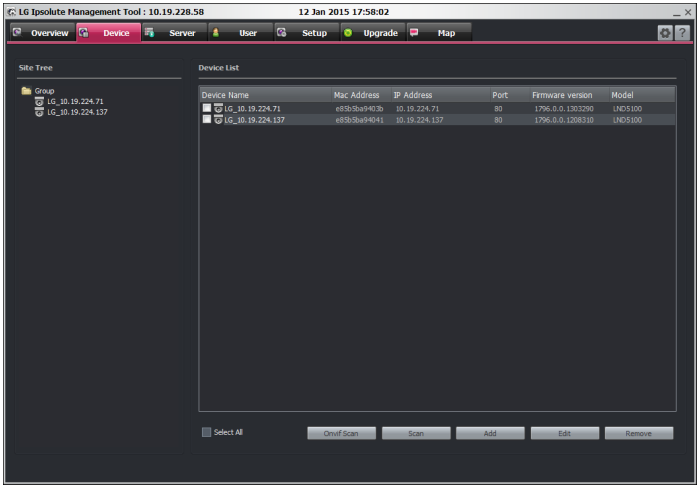


- Device: Displays the number of registered IP Camera and DVR. You can access directly to click [Setup] button.
- Server: Displays the number of registered Recording server, Streaming server and Video Wall server. You can access directly to click [Setup] button.
- User: Displays the number of registered User by User Group(Administrator, Power, Normal). You can access directly to click [Setup] button.
- Map: You can access directly to click [Setup] button.
- Device Setup & Upgrade: Click [Remote Setup] button to access the Setup menu. And also, click [F/W Upgrade] button to access the Upgrade menu directly.
- License & Tool Configuration: Click [License] button to register or upgrade VMS software license. If you click the [License] button, the license registration window will be displayed.

Device Management

Registration the device

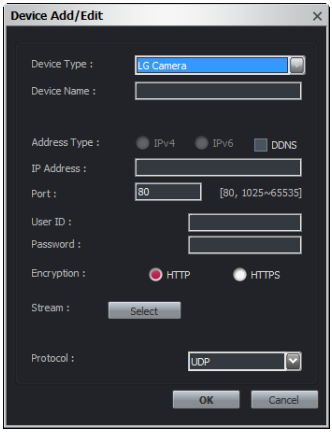
1. Select the [Device] tab on the main menu or click the [Device] icon on the [Overview] window. The Device window is displayed.



2. Click the [Scan] button. After a few seconds the found device is(are) displayed.
3. Select the device in the list. If you want to register the all device, check the [Select All] option.
4. Click the [Add] button. The Device Add/Edit window is displayed.
5. Specify the Device Name, User ID, Password, Protocol and click the [OK] button. The registered device is displayed in the Camera Group tree.

Registration the device manually

1. Select the Device tab on the main menu or click the [Device] icon on the [Overview] window. The Device window is displayed.
2. Click the [Manual Add] button. The Device Add/Edit window is displayed.



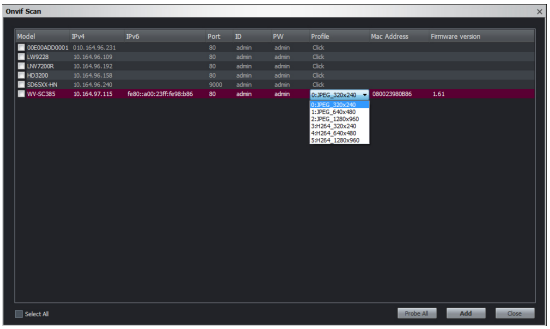
3. Specify the Device Type, Device Name, Address type, IP Address, Port, User ID, Password, Encryption, Protocol and click the [Select] button.
4. Select the stream.
5. Click the [OK] button to exit the window.

Note:

If you register the device by DDNS, it is recommended to use TCP mode.

Registration the Onvif camera

1. Select the Device tab on the main menu or click the [Device] icon on the [Overview] window. The Device window is displayed.
2. Click the [Onvif Scan] button. The Onvif Scan window is displayed.



3. You must change from [Click] to profile on the Profile option of the list. It means “Probe”.

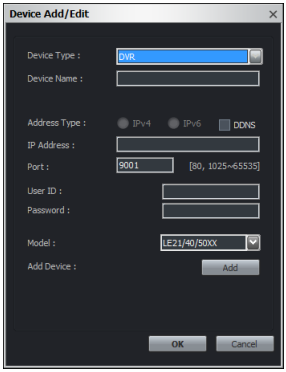
Note:

- The [Probe All] is option which set the profile to 0 automatically all about camera registered by ONVIF scan.
- If you do not select profile, devices cannot be registered.

4. Select the device in the list. If you want to register the all device, check the [Select All] option.
5. Click the [Add] button. The registered device is displayed in the Camera Group tree.

Registration the DVR

1. Follow steps 1-2 described in "Registration the device manually".



2. Select to DVR on the Device Type.
3. Specify the Device Name, IP Address, Port, User ID, Password and Model. IP Address can register IPv4 address only.
4. Click [Add] button. DVR Camera Add window is displayed.

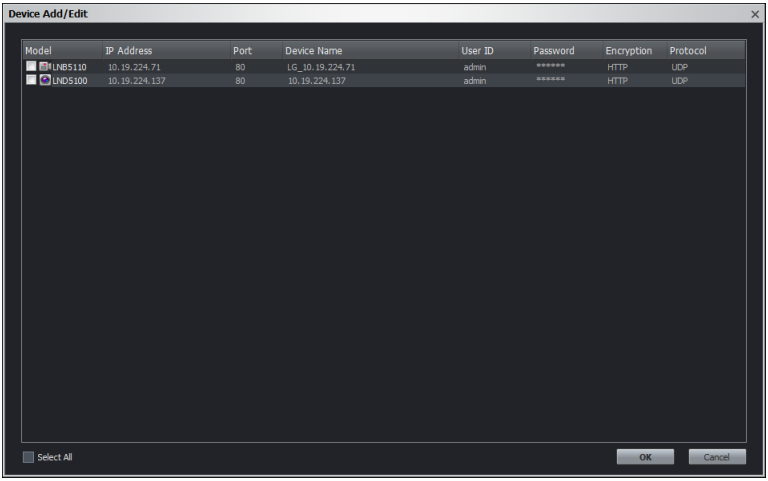
5. Select to desired camera channel and click OK to add device.

Edit the device

1. Click the check box of desired device.
2. Click the [Edit] button. The Device Add/Edit window is displayed.

   2-1.Each edit: Specify the Device Name, Port, User ID, Password, Encryption, Protocol and click the [OK] button.

   2-2.Multiple edit: Select devices which you want to be applied same settings. And then specify the [Port], [User ID], [Password], [Encryption], and [Protocol]. Selected devices are applied en bloc. But the [Device Name] is not applied en bloc. After the applicable of all settings, click the [OK] button.



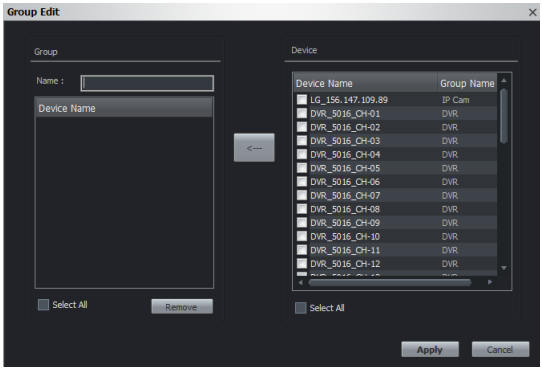
Remove the device

1. Click the check box of desired device.
2. Click the [Remove] button. The selected device is removed.

Create a new group folder and add the device

To create a device group under the selected folder, do the following on the Camera Group Tree section:

1. Click the right mouse button on the folder.
2. Select the [Add Group] option. The Group Edit window is displayed.



3. Enter the group name.
4. Select the device to add the group folder.
5. Select the required device name that you want to group. If you want to add the all device, check the [Select All] option.
6. Click the [<] button.
7. Repeat steps 5 to 6 to group the other device.
8. Click the [Apply] button to confirm it.
   The new group folder is created under the folder you selected.

Delete a group folder

1. Select the required group folder and click the right mouse button.
2. Select the [Remove Group] option.

Note:

- It is not possible to delete the [Group] folder.
- Deleting a group folder will delete all subgroup folders within the group folder as well. If you delete the group folder, the device in the group folder will be moved to the upper group folder automatically.

Edit a group folder

1. Select the required group folder and click the right mouse button.
2. Select the [Edit Group] option. The Group Edit window is displayed.
3. Overwrite the existing group name with a new name of your want.
4. Add or remove the device.
   - If you add the device, select the device and click the [<] button.
   - If you remove the device, select the device on the group list and click the [Remove] button.
5. Click the [Apply] button to confirm it.

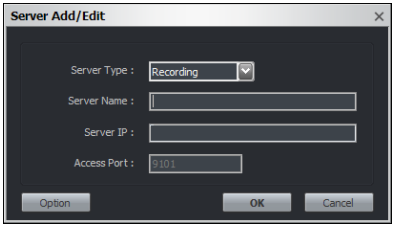
Note:

You cannot edit the [Group] folder.

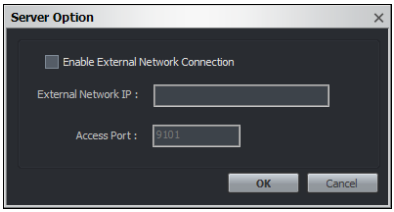
Server Management

Registration the Server

1. Select the Server tab on the main menu or click the [Server] icon on the [Overview] window. The Server window is displayed.
2. Click the [Add] button. The Server Add/Edit window is displayed.



3. To configure the external internet, click the [Option] button. The [Server Option] window is displayed.



4. Click the checkbox of the [Enable External Network Connection] option and then enter the external IP address in the [External Network IP] option. Click the [Ok] button to save settings.
5. Specify the Server Type, Server Name, Server IP and click the [OK] button.

Note:

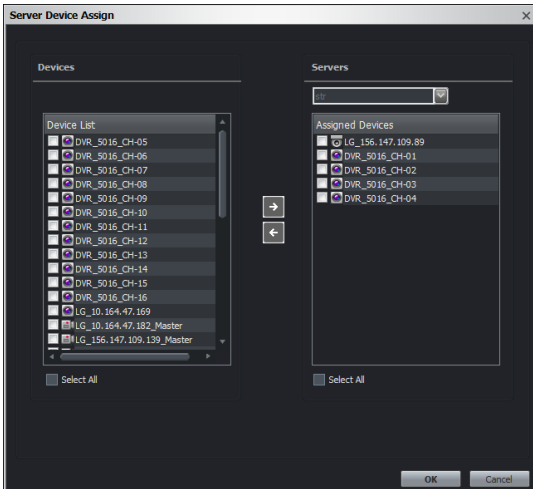
The external internet is function which for connected to VMS system is installed in local network using by Surveillance Client of remote network environment. The server should be supported more than 2 of LAN port. One port should be connected to local network and the other should be connected to external network. If the Surveillance Client where is installed in external network, the [Client Setup>General>Connect External Network] option is set to [On], the system is connect to server which is registered by external IP and you can not connect to VMS system where is installed in local network.

Remove the Server

1. Select the server on the list.
2. Click the [Remove] button. The selected server is removed.

Assign the device to the Server

1. Click the [Assign] button of the Server menu. The Server Device Assign window is displayed.



2. Select the required device on the Device List. If you want to assign the all device, check the [Select All] option.
3. Select the recording server from the drop-down list.
4. Click the [→] button. If you want to release it, select the device or check the [Select All] option and then click the [←] button.
   - Current recording device/Total recordable device: Indicate the number of current assigned device and recordable device on the basis of license.
5. Click the [OK] button to exit the window.

Check the status of device which is assigned server

You can check the current device status. If you want to check the abnormal device status, press the [Status] button and then you can view the result on the [Server Status] column.

Note:

The value (OK or No Response) of the Device Status displays the activate condition of the Web Service such as Device Setup or Device Upgrade.

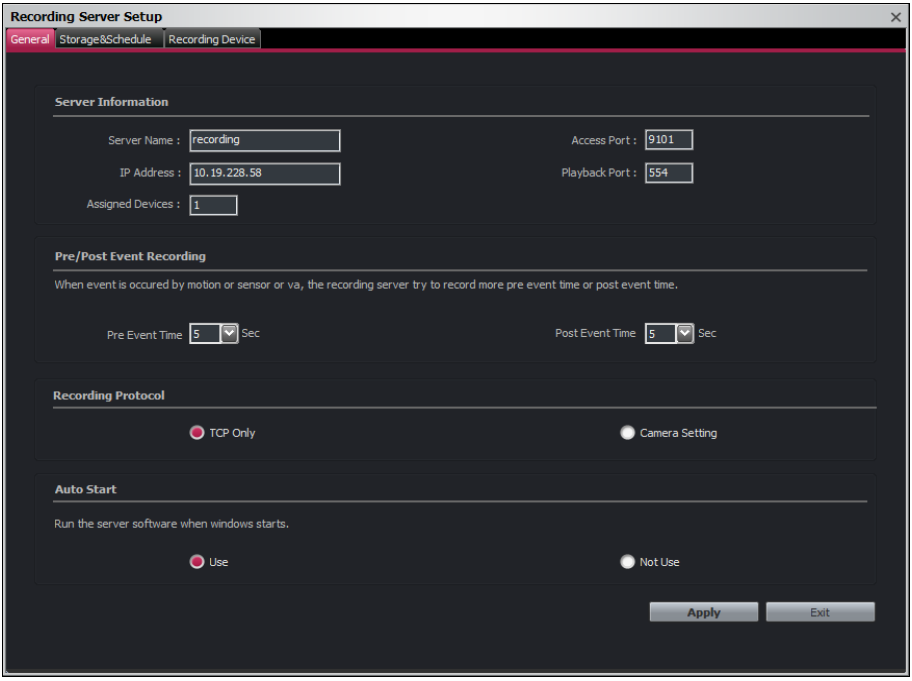
Configuration of the server settings

Select the setting server and then click the [Setup] button.

Note:

After completing the settings on each setup page, click the [Apply] button to confirm the settings.

General settings



> *Server Information*

Shows the Server Name, IP Address, Access Port, Playback Port and Assigned Device number.

> *Pre/Post Event Recording*

- Pre Event Time: Specify the pre-event recording time. When the Event signal is detected, the server is recording the data before the event during the setting time.
- Post Event Time: Specify the post-event recording time. When the Event signal is detected, the server is recording the data after the event during the setting time.

> *Recording Protocol*

- TCP only: If you select this option, the recording is implemented as TCP protocol only regardless of protocol setting.
- Camera Setting: The data is recorded as protocol setting when you added devices.

Note:

If you use RTP multicast option, TCP recording may not be performed. The default setting is RTP unicast and you can configure the setting from the Web Client. If the system is in a state of recording, it is recommened to use TCP only option. UDP connection may occur packet loss depending on the network status.

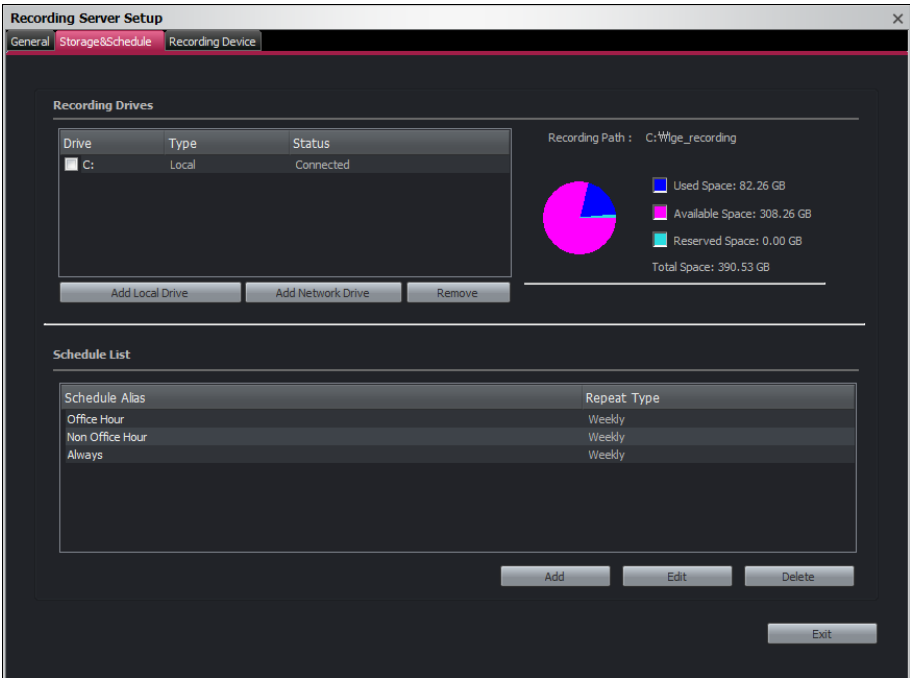
> *Auto Start*

If you select the [Use] option, the recording server runs automatically when the windows restart.

Note:

Disable or Turn Off UAC (User Account Control) in Control Panel. Server may not restart automatically when you restart the windows in the case of UAC activate. Do not use a login password when windows server is rebooted because if you set the login password then the Recording server SW will not be restarted automatically in rebooting.

Storage&Schedule



> *Add the recording drives*

1. Click the [Add Local Drive] or [Add Network Drive] button.
2. Set the detail options.

- [Add Local Drive] options.
  - Local Drive: Selects the local HDD drive of your recording server.
  - Directory: Enter the folder name to save the recorded data files.
- [Add Network Drive] options.
  - Drive: Selects the network drive name.
  - Folder: Enter the network drive address with folder name.
  - User ID: Type the user ID for the folder access in the Network drive.
  - Password: Type the password for the folder access in the Network drive.

3. Click the [Add] button.

> *Registration the recording schedule*

1. Click the [Add] button.[Schedule of Recording] window is displayed.
2. Enter the schedule alias.
3. Select the repeat type and set the detail options. It can be configured in 5 different ways, Daily, Weekly, No Repeat, Monthly and Yearly.

- Schedule duration: If the [Repeat type] option set to [No Repeat], [Monthly] or [Yearly],

this option is displayed.

- Custom day: If the [Repeat type] option set to [Monthly] or [Yearly], this option is displayed. When you set the [Custom day], the Management Tool can run the recording at a designated day only.

4. Select the record mode and set the recording schedule time using drag on the time table. The record mode differ from the model. The VMS is displayed the record mode automatically as the connected network device.

- None: The scheduled recording function is not activate.
- Continuous: The recording tasks run continuously during scheduled time.
- Motion: The recording tasks run during motion detection only.
- VA: The recording tasks run during occurrence of VA event only.
- Sensor: The recording tasks run during sensor detection only.
- C+V: The recording tasks run continuously during scheduled time, and the VA recording tasks run during occurrence of VA event. If the VA event is terminating, the continuously recording is performed again.
- C+S: The recording tasks run continuously during scheduled time, and the sensor recording tasks run during sensor detection. If the sensor event is terminating, the continuously recording is performed again.
- V+S: The recording tasks run during occurrence of VA event or sensor detection only.
- C+V+S: The recording tasks run continuously during scheduled time, and the VA event or the sensor recording tasks run during occurrence of VA event or sensor detection. When the event is terminating, the continuously recording is performed again.
- C+M: The recording tasks run continuously during scheduled time, and the motion recording tasks run during motion detection. If the motion event is terminating, the continuously recording is performed again.
- M+S: The recording tasks run during sensor or motion detection only.
- C+M+S: The recording tasks run continuously during scheduled time, and the sensor or motion recording tasks run during sensor or motion detection.

5. Click the [Apply] button to confirm the settings.

Note:

The Video Analytics (VA) event is the generic term for Intrusion Event, Crossing line Event, Object counting Event, Object Removal Event, Tampering Event, Face Detection, Audio Detection and Object Desertion.

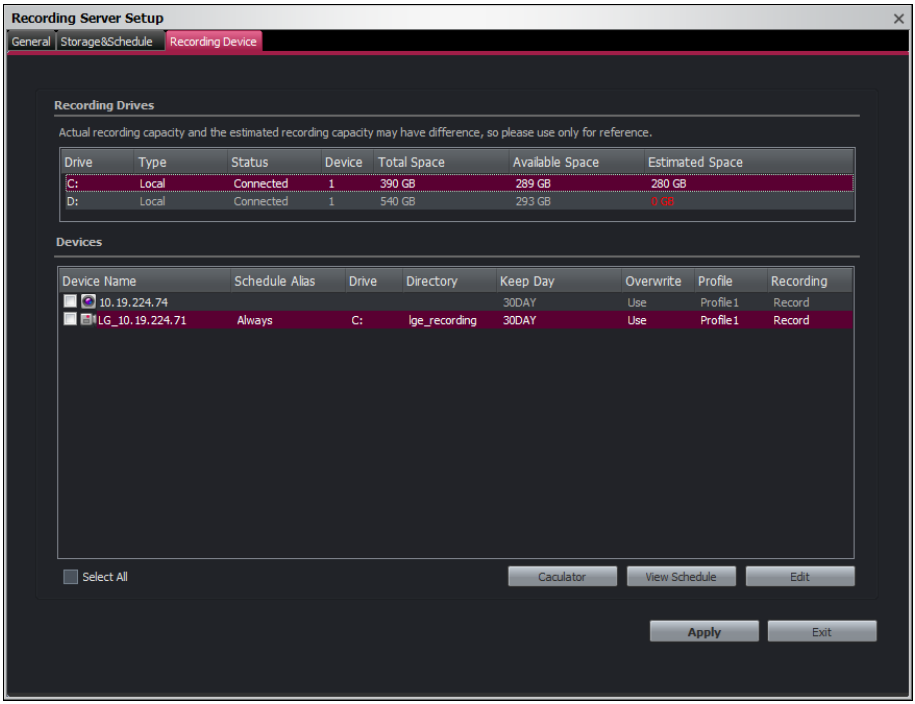
> *To edit the Recording Schedule*

1. Choose the Schedule Alias in the Schedule list.
2. Click the [Edit] button.
   You can check or change the recording schedule options except for [Repeat Type] and [Alias].

> *To delete the Recording Schedule*

1. Choose the schedule in the Schedule list.
2. Click the [Delete] button in the Schedule list.

Recording Device



> *Recording Drives*

Displays the status of recording drive. The [Estimated Space] and reality may be different.

- Drive: Displays the drive where is set the recording path.
- Type: Displays the drive type.
- Status: Displays the connected status of recording drive.
- Device: Displays the number of assigned devices on the drive.
- Total Space: Displays the total space of drive.
- Available Space: Displays the recordable space of drive.
- Estimated Space: Displays the necessary space when assigned devices are recorded during the [Keep Day].

> *Devices*

Displays the status of assigned devices in the recording server.

- Device Name: Displays the name of devices.
- Schedule Alias: Displays the specified schedule name of devices.
- Drive, Directory: Displays the recorded data path of devices.
- Keep Day: Displays the data stored period of devices.
- Overwrite: Displays the overwrite permission or not. If the keep day is passed, the

recording data is deleted in old order.

- Profile: Displays the profile of video stream.
- Recording: Displays the recording or not.

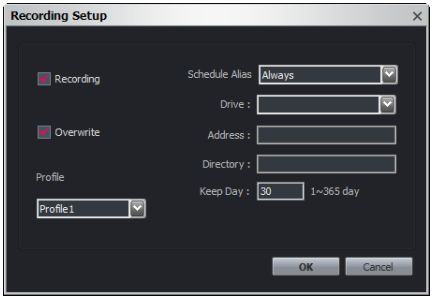
Note:

- Use the [Estimated space] option only for reference because the estimated space may differ from the real space.
- You should click the [Apply] button to recalculate the space when you change the profile.
- It takes about 1 minute to calculate the space.

> *Recording and playback device setting*

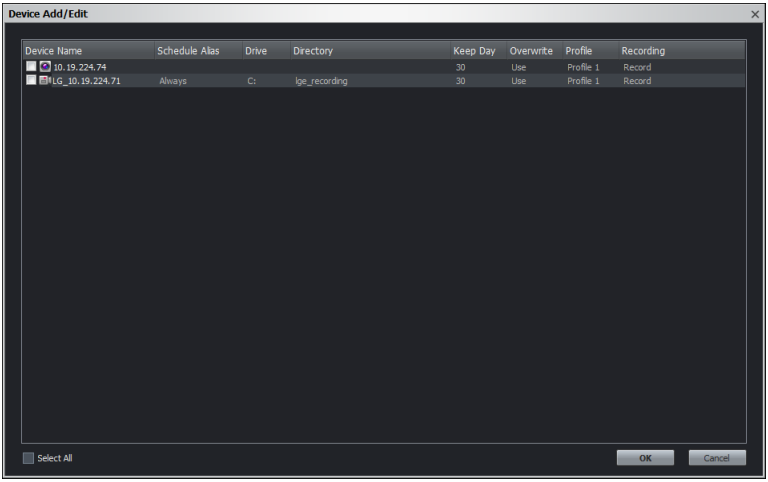
1. Select the device on the device list.
2. Click the [Edit] button. The Recording Setup window is displayed.

   2-1.Each setting: Set the options.



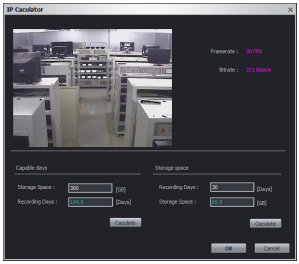
- Recording: The applicable device is not performed recording if this option is not checked.
- Overwrite: When the storage of recording server has overflowed, previous data is deleted and then the recording is performed. (Recommendation)
- Schedule Alias: Select the recording schedule of applicable device.
- Drive: Select the drive where is set the recording path.
- Address: When you select the network drive, the recording path of network drive will automatically be entered.
- Directory: When you select the local drive, the recording path of applicable drive will automatically be entered.
- Keep Day: When it is passed configured period, previous data is deleted automatically even if the storage has enough capacity. If the recording capacity is not enough, the recording data may be deleted by [Overwrite] function before the keep date.
- Profile: Select the profile of video stream.

2-2.Multiple setting: Click the check box of setting devices and then click the [Edit] button. Selected devices list is displayed.



- Select devices which you want to be applied same settings. And then specify the [Schedule Alias], [Drive], [Keep Day], [Overwrite], [Profile], [Recording]. Selected devices are applied en bloc.
- After completion of all settings, click the [OK] button.

3. Calculate the storage: Select device and click the [Calculator] button. The IP Calculator window is displayed. Click [Calculate] to confirm the enable recording days and storage space.



Warning:

The calculated data can change to other value according to a video image scene including motion vector.

4. Verification of recording schedule: Click the check box of devices which will be confirmed recording schedule and then click the [View Schedule] button. The [Schedule of Recording] window appears. But, if you do not assign the recording schedule, the [Schedule of Recording] window does not appear.
5. Click the [Apply] button to save settings, or click the [Exit] button.

User Management

Create a new User Group

1. Click the [+] button on the User Tree section. The User Add/Edit window is displayed.
2. Set the [Name] and [User Level] and then click the [Apply] button. The permission as per Group Level is selected automatically.

Edit a User Group and assign the User

1. Click the [ ] button on the User Tree section. The User Add/Edit window is displayed.
2. Select the user from the User List.
3. Click the [ ] button. If you want to release it, select the user or check the [Select All] option and then click the [Delete] button.
4. Click the [Apply] button to exit the window.

Note:

You cannot edit the [Name] and [User Level] option.

Delete a User Group

1. Select the required User Group.
2. Click the [ ] button on the User Tree section.

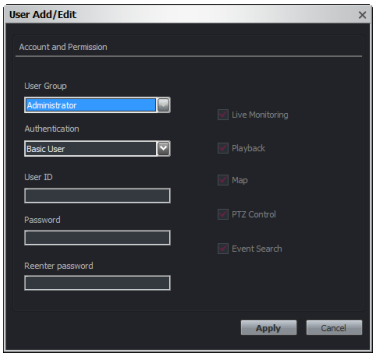
Note:

- It is not possible to delete the default User Group(Administrator, Power User, Normal User).
- If you delete a User Group, the user in the User Group will be moved to the default User Group automatically.

Registration the new user

Basic User Add

1. Click the [User] icon of the Main menu or [Overview] window.
2. Click the [Add] button. The User Add/Edit window is displayed.



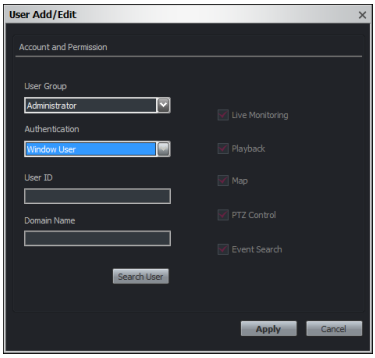
3. Select the User Group. The permission of selected group is applied.
4. Select [Basic User] from the [Authentication] option.
5. Specify the User ID, Password and click the [Apply] button.
6. Click the check box if you control permissions of the Surveillance Client.
   - Live Monitoring: You can see the live view of assigned devices from the Surveillance Client.
   - Playback: You can see the image recordings of assigned devices from the Surveillance Client.

     Note:

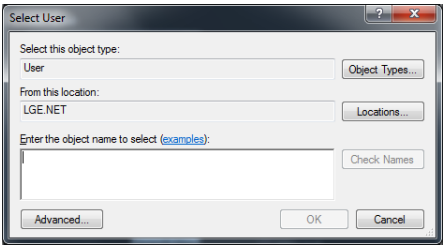
     If you do not have the permission of playback, you can not use the instant playback function from the [Live] tab of the Surveillance Client.
   - Map: You can use the map function from the Surveillance Client.
   - PTZ Control: You can operate the PTZ function from [Live] tab of the Surveillance Client.
   - Event Search: You can use the [Event] tab's function from the Surveillance Client.
   - Video Wall: You can use the [Video Wall] tab's function from the Surveillance Client.
7. Click the [Apply] button to exit the window.
   The registered user is displayed in the Users tab.

Windows User Add

1. Follow steps 1-3 described in "Basic User Add".
2. Select [Window User] from the [Authentication] option.



3. Click the [Search User] button. The [Select User] window is displayed.



4. Enter the object name in the input field and then click the Check Names button.
5. Click the OK button to exit the Select User window.
6. Click the [Apply] button to exit the window.
   The registered user is displayed in the Users tab.

Note:

To register the windows user, the pertinent PC and management server should be logged same domain.

Edit the user

1. Click the [User] icon of the Main menu or [Overview] window.
2. Select the user on the list.
3. Click the [Edit] button.
4. Specify the User Group, Password and click the [Apply] button.

   Note:

   You can not edit the User ID.

Remove the user

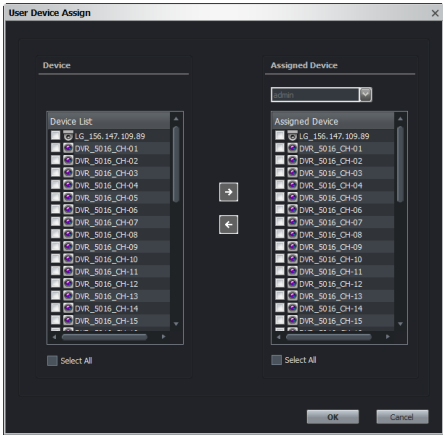
1. Click the [User] icon of the Main menu or [Overview] window.
2. Select the user on the list.
3. Click the [Remove] button. The selected user is removed.

   Note:

   You can not remove the admin user ID.

Assign the device to the User

1. Click the [Assign] button of the User menu. The User Device Assign window is displayed.



2. Select the required device on the device list. If you want to assign the all device, check the [Select All] option.
3. Select the user from the drop-down list.
4. Click the [→] button. If you want to release it, select the device or check the [Select All] option and then click the [←] button.
5. Click the [OK] button to exit the window.

Remote Setup settings

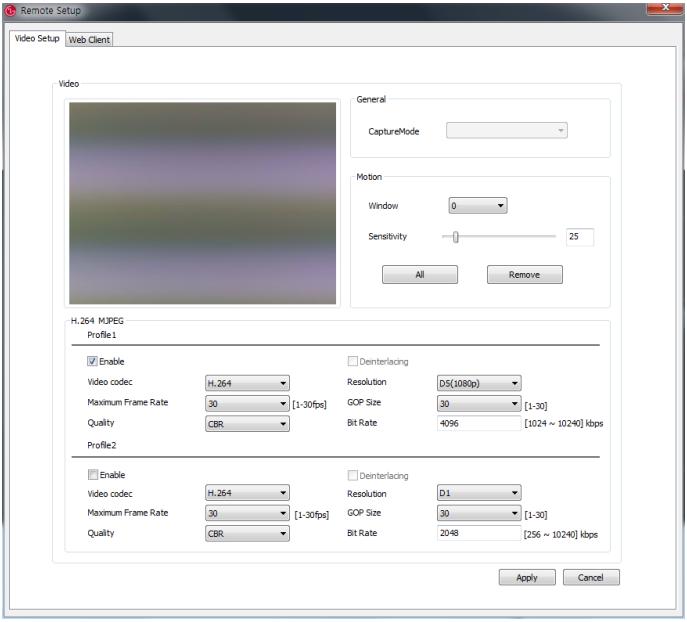
You can set the device via the network.

1. Click the [Setup] icon of the Main menu or [Overview] window.
2. Select the device name.
3. Click the [Setup] button. The remote setup window is displayed.
4. Set the options.

Note:

- After completing the settings on each setup page, click the [Apply] button to confirm the settings.
- In case of the specific models are not displayed Video Setup menu but are connected to web client of camera directly.
- You can set the feature about video is used all model of LG camera commonly on the [Video Setup] tab.
- Set the characteristic function of each camera on the [Web browser] tab.
- In case of the camera which is supported Smart codec function, set the feature on the [Web browser] tab.

Video Setup



General

CaptureMode

This item is optional. Select the capture mode.

Motion

Motion detection window is used to detect movement of the object in the video image. Motion detection is used to generate an event whenever movement occurs in the video image. A total of 5 motion detection windows can be configured.

1. Select Motion Detection window number from the drop-down list.
2. Click one point with the left mouse button on the preview window and drag & drop to adjust the desired size. The Motion detection window will appear in the video window. If you set to all area, click the [All] button.
3. Set the Sensitivity value. The higher Sensitivity value is set, the smaller motion can detect.

Note:

- You can reset the size and position of the Motion detection window. Click one of the dot point and drag & drop to adjust the motion detection area. Click the Motion detection window and drag to the desired position.
- If you want to delete the Motion detection window, select window number and click the [Remove] button.
- Motion Detection is activated when the Video Codec is set to [H.264] only.

H.264 & MJPEG

Enable

Click to activate the stream function.

Deinterlacing

Click to use the deinterlacing function.

Video Codec

Select the video mode (Codec) from the dropdown list.

Resoultion

Select the output image size of the camera.

Maximum Frame Rate

Select the frame rate from 1 to 30.

Note:

Few models which is supported H.264_High codec, can select up to 60 fps.

Quality

Select the Quality.

> VBR: The bit rate may vary depending on the complexity of the video to meet the selected quality.

> CBR: The video quality may vary in order to preserve a constant bit rate.

GOP Size

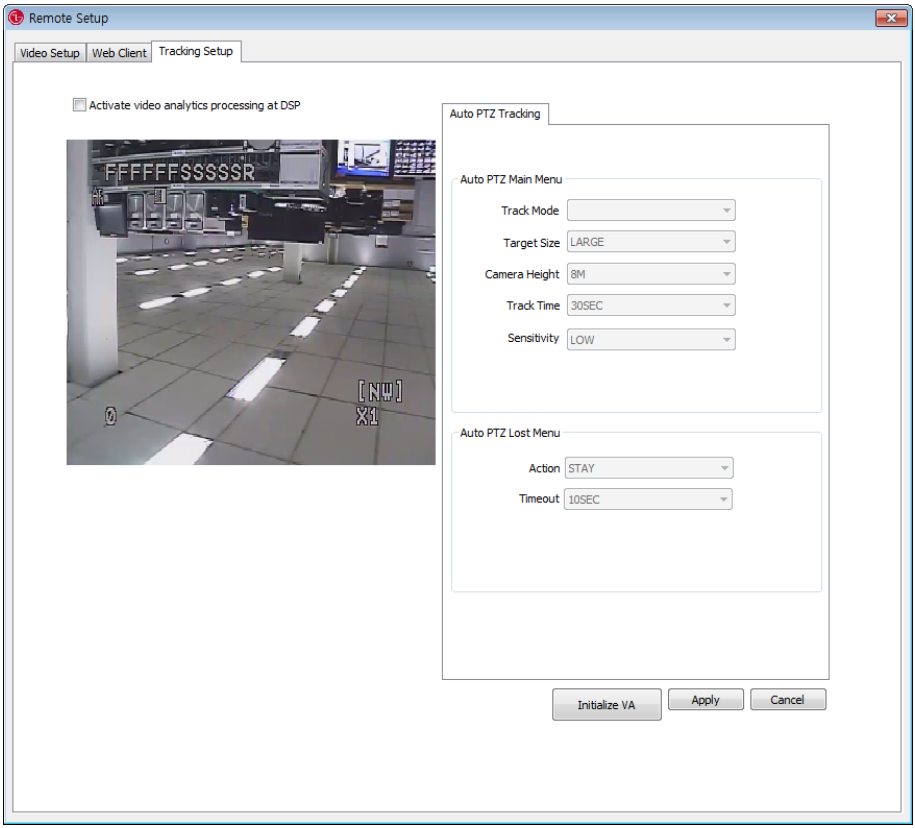
Select the GOP size. This setting is valid for H.264.

Stream Quality

> Stream Quialy: If the [Quality] option set to VBR, this option is displayed.Select the network stream quality. (HIGHEST, HIGH, MEDIUM, LOW and LOWEST)

> Bit rate: If the [Quality] option set to CBR, this option is displayed.Enter the bit rate.Edit the bit rate value from 256 kbps to 10 240 kbps.

Tracking Setup (Option)



Activate video analytics processing at DSP

Check the box to enable the video analytics.

Auto PTZ Tracking setting

Configure Auto PTZ Tracking Algorithm Parameters. These parameters are to be used for tracking the object displayed on the screen.

Auto PTZ Main Menu

Track Mode

Configuration of tracking modes for moving objects.

> PT : This mode uses Pan/Tilt and tracks objects while auto tracking is conducted.

> PTZ : This mode uses Pan/Tilt/Zoom and tracks objects while auto tracking is conducted.

Target Size

Configuration of how large the object being tracked is actually displayed on the screen.

> SMALL : This mode zooms in and magnifies the object until it occupies 1/4 of the screen.

> MEDIUM : This mode zooms in and magnifies the object until it occupies 2/4 of the screen.

> LARGE : This mode zooms in and magnifies the object until it occupies 3/4 of the screen.

Camera Height

Configures the height of the camera.

Track Time

Configures maximum time duration of tracking. The system starts tracking when it detects objects in motion. As the time reaches the maximum time duration configured by user, the tracking is disabled and the camera returns to its initial position. The system will be reset for tracking new objects. You should be aware not to set up the time duration too short since it may cause tracking failure.

Sensitivity

You can configure the sensitivity of detection. Choosing proper sensitivity will enhance the performance of auto tracking since the environmental condition may influence the accuracy of the detection.For instance, rain, snow, or swaying branches may cause malfunctioning of auto tracking.

> LOW: The sensitivity of the object detection is LOW. In this case, false detection rate is also low, but if the object itself is too small or very similar to the background, it may not be detected.

> MEDIUM: The sensitivity of the object detection is middle. The camera detects the object more accurately than the case of low sensitivity. It may detect swaying branches or flags, but not frequently.

> HIGH: The sensitivity of the object detection is HIGH. The camera can detect even smaller one, but it can also detect swaying branches or flags. Additionally, rain or snow may decrease the accuracy of the detection.

Auto PTZ Lost Menu

Action

You can configure next step when the camera lost the object which has been tracked.

> STAY : When the camera loses the object, it doesn't come back to its initial position, but stays where the object has been just lost.

> RETURN : When the camera loses the object, it returns to its initial position and gets ready to detect new object.

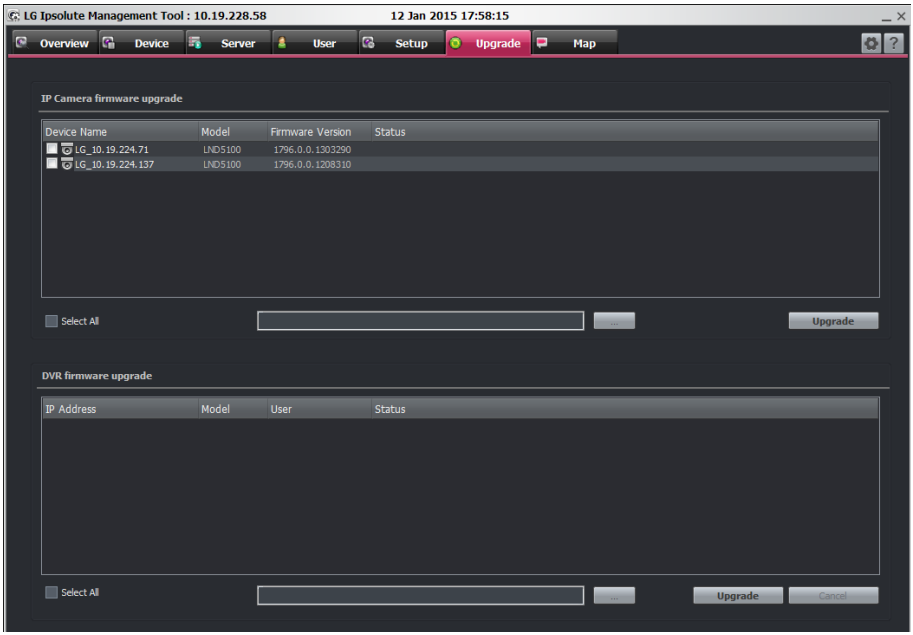
Time Out

When the camera lost the object for the first time, it zooms out twice and tries to track the object. Time Out variable, after the camera zooms out twice, sets how long the camera maintains the status of the object detection to re-detect it.

- **Apply**
  After completing the settings on this page, click [Apply] button to confirm the settings.
- **Cancel**
  Cancels the setting of current values.

Device Upgrade settings

You can update the device manually.



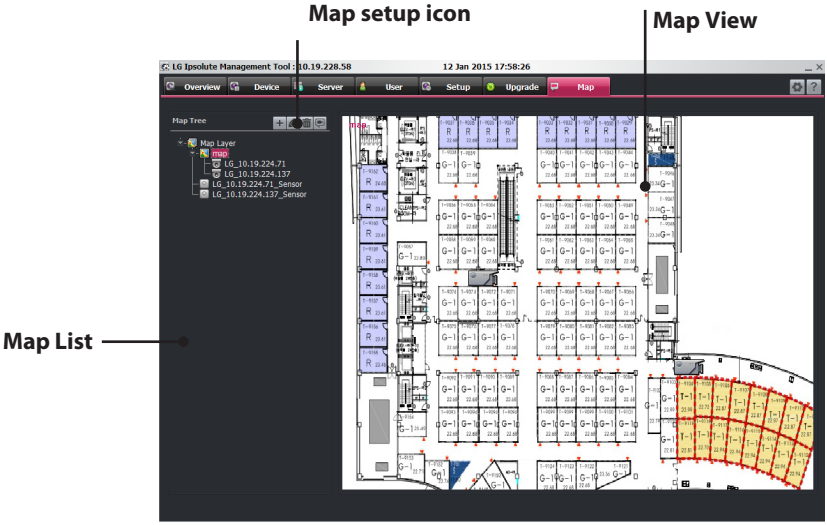
1. Select the device on the Device list. If you want to upgrade the all device, check the [Select All] option.
2. Click the [Path] button.
3. Find and open the firmware file.
4. Click the [Upgrade] button to update the firmware.

Note:

Multi device upgrade needs more time than single device upgrade.So upgrade time has relation to number of device or VMS status. But this operation is useful for management of much device.

Map settings

This function gives a visual overview of the device in your surveillance environment.



Map setup icon

Click to setup the Map options.

	Add Map	Click to add the map.
	Edit Map	Click to modify the map.
	Remove Map	Click to remove the map
	Device Mapping	Click to allocate and edit the map.

Map List

Displays the imported Maps.

Map View

Displays the registered Maps.

Add the Map

1. Select the map as parent on the Map list.

2. Click the [Add Map] button and specify the name.
3. Select the file to register the sub-map of the selected map.

Edit the Map

1. Select the required Map.
2. Click the [Edit] button. The [Map Add/Edit] window is displayed.
3. Edit the device position, Map name or delete the device.
4. Click the [OK] button to exit the window.

Delete the Map

1. Select the required Map.
2. Click the [Delete] button. The selected Map is deleted.

Device Mapping

1. Select the map on the Map List.
2. Click the [Device Mapping] icon and then place the device on the desired location.
3. Click the [Device Mapping] icon again to save the settings.

Device Icon

The camera icon and sensor icon being the same IP address can place separately.

Camera	
Sensor	

Rotate the device image

1. Select the map on the Map List and click the [Device Mapping] icon.
2. Select the desired device and click mouse right button to select the Rotate menu and desired angle.

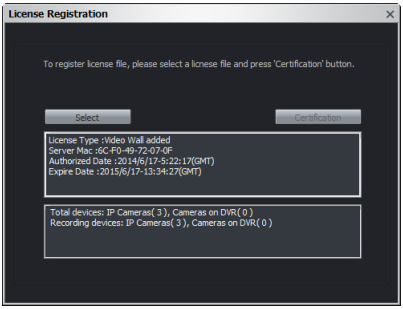
Remove the device image

1. Select the map on the Map List and click the [Device Mapping] icon.
2. Select the desired device and click mouse right button to select the Remove menu.

License Management

Registration the License

1. Click the [License] icon of the [Overview] menu. The [License Registration] window will be displayed.


License Registration
To register license file, please select a licnese file and press 'Certification' button.
Select
Certification
License Type :Video Wall added
Server Mac :6C-F0-49-72-07-0F
Authorized Date :2014/6/17-5:22:17(GMT)
Expire Date :2015/6/17-13:34:27(GMT)
Total devices: IP Cameras(3), Cameras on DVR(0)
Recording devices: IP Cameras(3), Cameras on DVR(0)

2. Click the [Select] button.
3. Find and open the License file.
   - License Type: Indicates the type of license. You should register the applicable license in order to use the video wall server.
   - Server Mac: Indicates the Hardware Mac address of Work Station where Management Server installed.
   - Authorized Date: Indicates the date when the license is authorized.
   - Expire Date: Indicates the date when current license is expired.
   - Total Devices: Indicates the number of registerd all of device on the device list.
   - Recording Devices: Indicates the number of assigned device on the Recording Server.

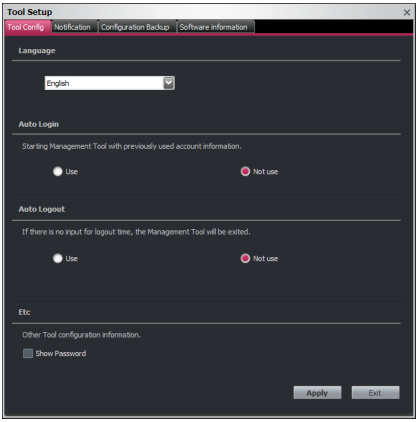
     Note:

     - IP camera is counted 1 device as 1 and DVR is counted 1 device as 0.25 on the Recordable Device.
     - The Recordable Devices is fixed 16 automatically when the Expire Date is elapsed. And you can not assign device on the recording server. To record more device, you have to renew the license.
4. Click the [Close] button to exit the window.
   You can use the all channels without limitation.

Tool Configuration

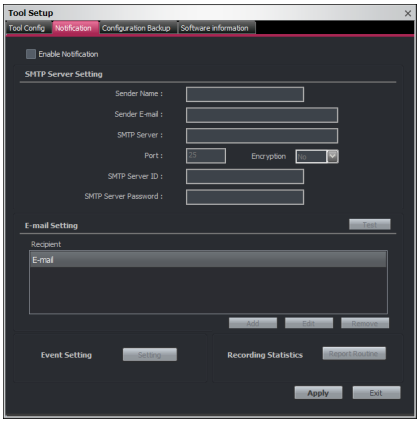
Click the [Tool Config.] icon of the [Overview] menu. The [Tool Setup] window will be displayed. Select the each tab and then confirm and configure the settings.

Tool Config.



- Language: Displays the language of the Management Tool.
- Auto Login: If you select [Use], you can start the Management Tool automatically as pre-executed account.
- Auto Logout: The Management Tool is logged out automatically if you do not conduct the user mouse input during the Logout Time.
- Show Password: Show or hide character of the password as you type. If you uncheck the setting of [Show Password], the password shows **** or ●●●●.

Notification



Enable Notification

When the event occurs, you can inform by registered E-mail address. Click the checkbox to select the enable notification or not.

SMTP Server Setting

You can send the E-mail by using the SMTP server. Specify the below SMPT server settings.

- Sender Name: Enter the sender name.
- Sender E-mail: Enter the E-mail address of sender.
- SMTP Server: Enter the SMTP server address.
- Port: Enter the SMTP port number.
- Encryption: Select the encryption protocol.
- SMTP Server ID: Enter the user ID of the SMTP server.
- SMTP Server Password: Enter the password of the SMTP server.
- Test: Click the [Test] button and check that the mail can be sent correctly. The SMTP test mail will be transferred to the sender.

E-Mail Setting

> *Registration the E-mail address of recipient*

1. Click the [Add] button. The [Recipient Add/Edit] window is displayed.
2. Enter the E-mail address of desired recipient.
3. Click the [OK] button to exit the window.

> *Edit the recipient E-mail address.*

1. Select the E-mail address in the recipient list.
2. Click the [Edit] button. The [Recipient Add/Edit] window is displayed.
3. Edit the recipient E-mail address.
4. Click the [OK] button to exit the window.

> *Delete the E-mail address of recipient*

1. Select the E-mail address in the recipient list.
2. Click the [Delete] button to selected E-mail address is deleted.

Event Setting

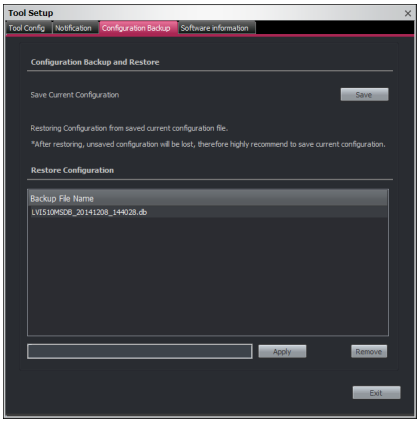
You can select the event options which can be sent by E-mail to user. Click the [Setting] button. The [Notification Event Set] window is displayed.

- Video Loss: Sends an e-mail when a video signal from the camera has stopped because of a cable disconnection or malfunction of a camera.
- Motion Detected: Send an e-mail when a motion detection has occurred.
- Alarm: Send an e-mail when a sensor has occurred.
- Recording Failure: Send an e-mail when a device has the [Not recording] status from the recording server.
- Notification interval for same event: If you set the [Notification interval for same event] the email can be sent per specified time when the same event has occurred several time. Enter the desired interval and then click the [Ok] button.

Recording Statistics

1. The recording statistics report will be sent. Click the [Report Routine] button. The [Record Statistics Report] window is displayed.
2. Specify the report time and the report period.
3. Click the [Ok] button to save settings.
4. The mail attached xls (Microsoft Excel) file is sent to registered e-mail address on alarm time.

Configuration Backup

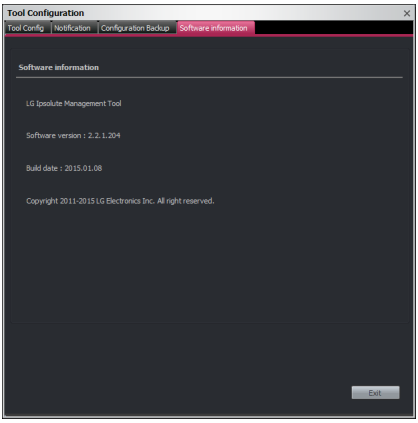


1. To save the current settings, click the [Save] button. When the save is completed, the saved file name is added on the [Backup File Name] list. The file is saved in the backup folder where is installed the management server folder.
2. To restore the settings, select the desired file from the [Backup File Name] list. Displays the selected file name from the bottom of list.
3. If you click the [Apply] button, it appears confirmation message of restore. Click the button to restore the configuration. Management Tool program is restarted after restore completion.
4. To delete the backup file, select the desired file from the [Backup File Name] list and then click the [Delete] button.

Note:

- The [Language], [Auto Login], [Auto Logout] and [Show Password] options are not restored when the configuration restore.
- If the server configuration is changed, you can not progress the restore.

Software information

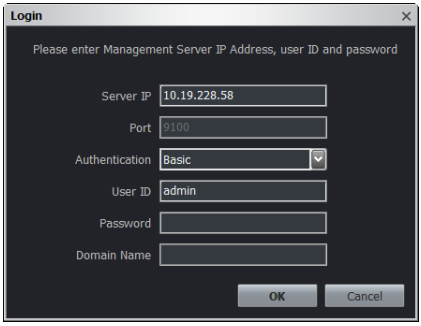


- Software Information: Displays the version of the Software Information.

Using the Surveillance Client Program

Starting the Surveillance Client Program

1. Run the Ipsolute Surveillance Client program. To launch Surveillance Client program, select Surveillance Client from your **Start > Programs > LG Ipsolute > LVi510 > Surveillance Client** or click the Surveillance Client icon on your desktop. The Surveillance Client login window is displayed.

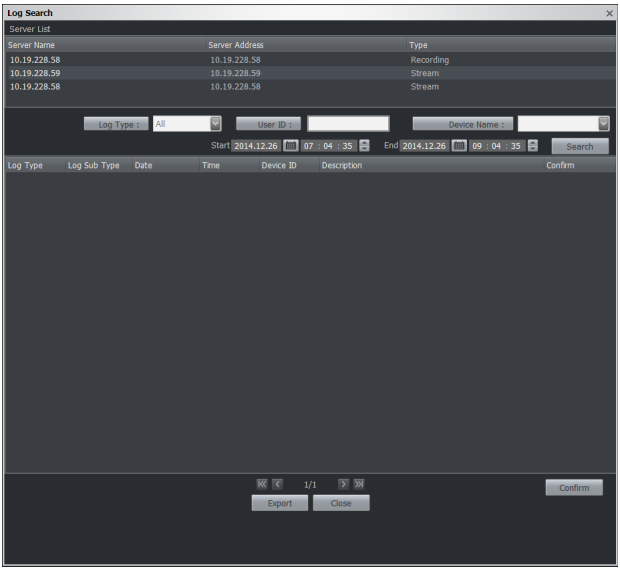


2. Select [Basic] or [Windows Authentication] from the [Authentication] option.
3. Enter the [Server IP], [User ID] and [Password]. (Note that the default administrator user name and password are “admin”.) Surveillance Client window is displayed. In the case of [Windows Authentication], you can only use PC in which is logged relevant account, and you don’t need to password. In case of the [Windows authentication], You should logon the same domain with the pertinent PC and management server PC and you can logon without input the password.

Using the icon button

Using the Log view

You can see the system log list.



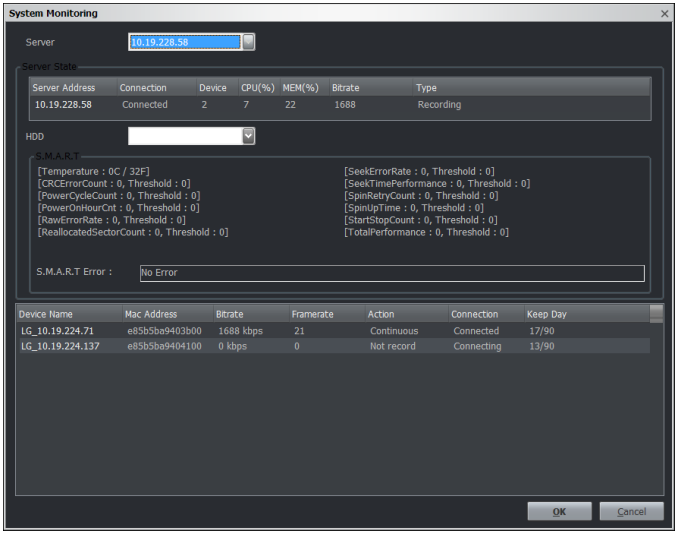
1. Click the button. The log window is displayed.
2. Select the server you want on the server list. The recording server, streaming server, DVR which is registered management server the Surveillance connect to are displayed on the Server List.
3. Select the [Log Type], [User ID], [Device Name] to set the search condition.
4. Click the [Calendar] button and select the day and time.(The selectable days are displayed in green color.)
5. Click the [Search] button.
6. Use [Prev] or [Next] to see the previous or next log list. If you move to the beginning page of the log list, click the [First] button.
7. Click the [Export] button to download a text log file.
8. Select the Confirm option from the each log item. Select the check box and then click the Confirm button, you can see the result who did check it.

Note:

- The system log is system log data of server which is selected from the current server list. Therefore, if the selected server is not connected, the system log can not search and export.
- If you select the DVR option, the User ID and Device name options disappear from the search.

- The exported file is saved as XLS format. You can see the file as Microsoft® Office Excel or Excel Viewer program.

System Monitoring



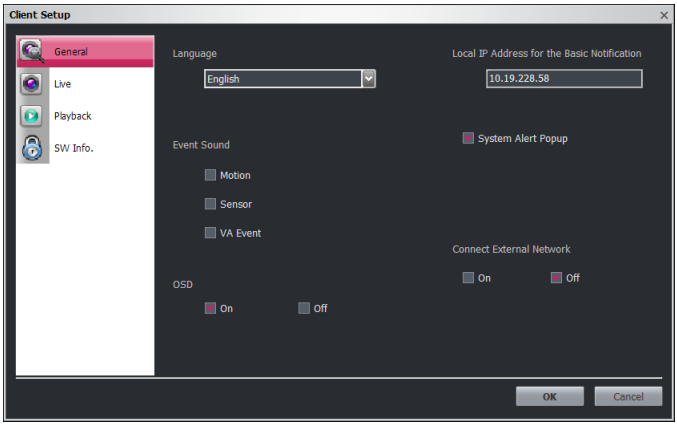
1. Click the mouse right button on the title bar of [Surveillance Client]. The main frame pop-up menu is displayed.
2. Click the System Health View option.
3. Select the server which do you check the status on the [Server] list.
4. You can confirm the information as below.
   - Check the system status of server.
     - Server Address: Displays the IP address of server.
     - Connection: Displays the connecting status of server.
     - Device: Displays the number of devices connected to server.
     - CPU(%): Displays the CPU usage rate of server.
     - MEM(%): Displays the memory usage rate of server.
     - Bitrate: Displays the bitrate value of server.
     - Type: Displays the type of server.
   - Check the status of HDD S.M.A.R.T.
   - Check the status of devices connected to server.
     - Device Name: Displays the name of devices.
     - Mac Address: Displays the Mac address of devices.
     - Bitrate: Displays the bitrate value of devices.
     - Framerate: Displays the framerate of devices.

- Action: Displays the recording status of devices.
- Connection: Displays the connecting status of devices.
- Keep Day: Displays the data stored period of devices.

Client Setup settings

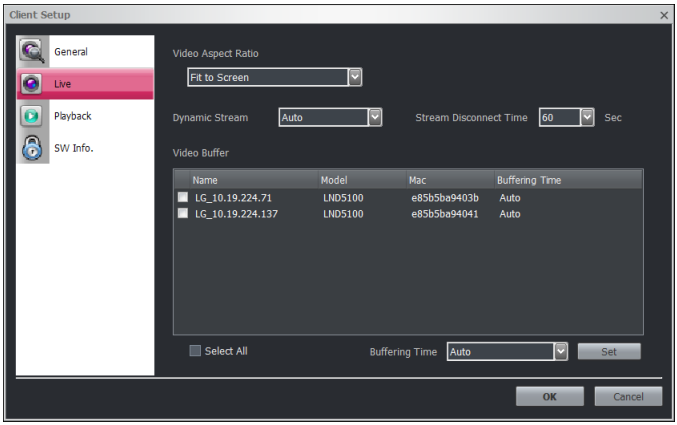
Click the button. The Client Setup window is displayed.

General



- Language: Select the language.
- Local IP Address for the Basic Notification: Enter the IP address of PC which is installed the Surveillance client in order to receive the event from the Onvif protocol used camera. The default is first IP address. If you have several IP addresses, use the IP address same as network bandwidth of camera.
- Event Sound: Beep the event sound according to selected event.
- System Alert Popup: Select the system alert popup activate or not. If you do not check the system alert popup, alert notification is not displayed. Or, alert notification appears when the following server status.
  1. When the recording server and streaming server is disconnected.
  2. When the recording server and streaming server access cut off or the camera has video loss.
  3. When the camera is not state of recording from the recording server.
- Connect External Network: This is the function in order to connect to the VMS system from the Surveillance Client installed in external network. If you use the function, external network connection of server should be set to enable and server must be connected to external network.
- OSD: Check [On] or [Off] to select the OSD.

Live



- Video Aspect Ratio: Select the video output ratio.
  - Fit to Screen: Displays the video according to screen size.
  - Original Aspect Ratio: Displays the video according to original video source ratio.
- Dynamic Stream: You can select the Auto, HD only, and SD only mode. HD only and SD only mode is not applied dynamic steam and it is always connected as HD or SD.

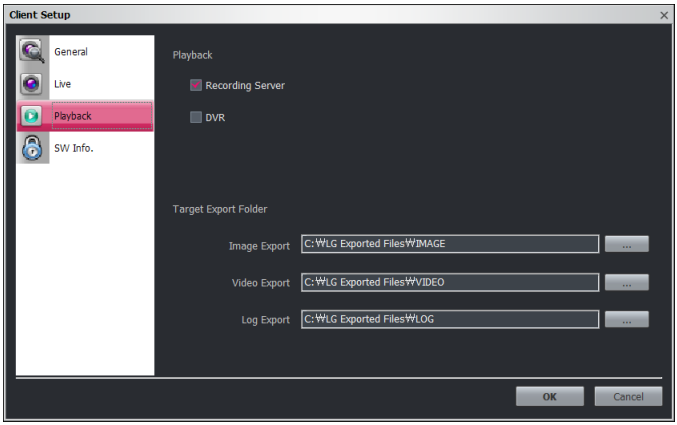
  Note:

  The dynamic stream is method in order to connect as many as cameras and connect as HD or SD automatically depending on the screen format. In other words, if division screen is small, stream is connected as SD profile. If the 4 division below or most wide screen of big+small division format, stream is connected as HD profile.
- Stream Disconnect Time: If you do not see the video during the set time as the reason of screen format change and so on, the relavant devices cut off the access for efficient system resource management. When you see again the screen, the device is connected again automatically. The setting time is 5, 10, 15, 30, 45, and 60 seconds.
- Video Buffer: Displays the each status of device buffer. This option displays smooth video playback.Each video is buffered during set time. And also, each frame is displayed evenly in a certain time.
  - Buffering Time: Adjusts the buffering time of the live video.

  Note:

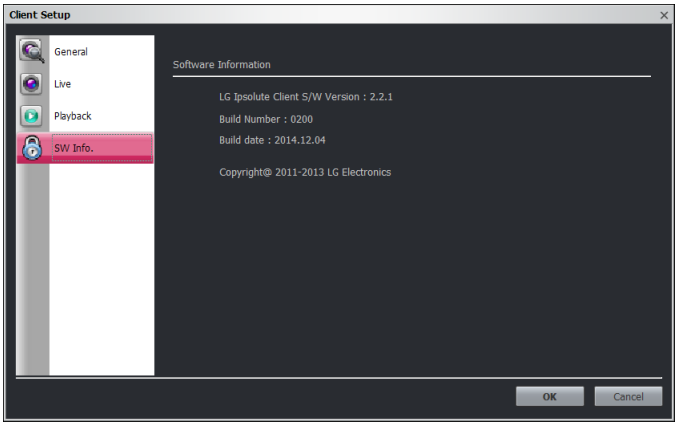
  - If you use this function, the amount of buffer is increased and video is delayed as much as set time. It is recommended to set to Auto for minimize of image buffering. Video Buffer function is not supported to the DVR.
  - After setting of the [Buffering Time], you have to restart the Surveillance Client for operate the program.

Playback



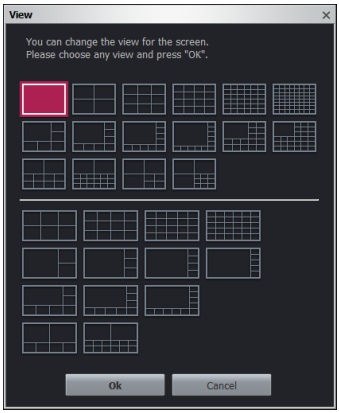
- Playback: If you configure the recording setting, recording server and DVR is executed recording same time.Select [Recording Server] or [DVR] when you request recorded data on the surveillance client.
- Target Export Folder: Set the export path. The default path is like as below.
  - Image Export: .../LG Exported Files/IMAGE/
  - Video Export: .../LG Exported Files/VIDEO/
  - Log Export: .../LG Exported Files/LOG/

Software Information



Displays the version of software.

Screen Format



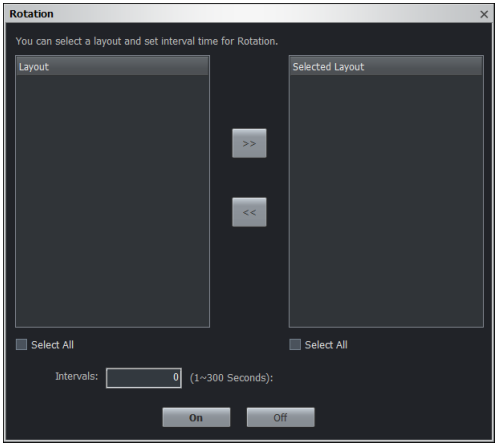
Click the button. The view window is displayed.Select the desired Screen Format. The view is changed selected Screen Format.

Hotspot

Click the button. The selected Hotspot channel is displayed purple border and image of selected channel is copied to the hotspot channel.

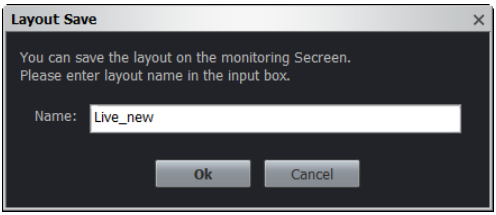
Sequence

1. Click the button. The Rotation window is displayed and view all the channels in sequence in the selected Screen Format.
2. Click or to allocate the layout what the desired Screen Format and information of device mapping.
3. Enter the interval time and then click the [On] button to save setting.



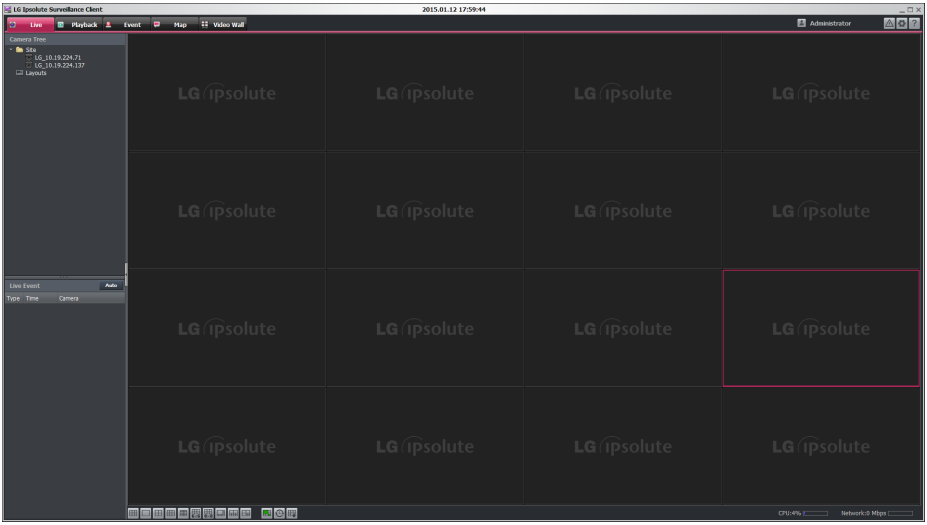
Save Layout

Click button to store the mapping information after set the surveillance device on the desired Screen Format.Enter the layout name and click OK. The icon is created on the device tree window.



Select the layout icon to browse the desired layout. If you want to delete the layout, select the layout and click mouse right button. The popup menu is displayed and you can select delete to delete the layout.

Live



1. Click the [Live] tab to see the live view.
2. Select registered device or group on the device tree, and then drag and drop the Live view window.
3. Mapping device will be connected automatically.

Live Event icon

Icon	Description
	Indicates Video Analysis Event.(Intrusion, Crossing Line, Object Removal, Tampering, Face Detection and Audio Detection)
	Indicates motion detection
	Indicates sensor event.

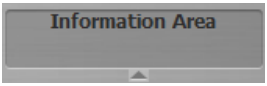
Note:

If you press [Auto] button on the live event window, current live screen is removed and the device which event occurred displays sequentially on the screen.Device drag and drop function can not do when auto event function perform.

Using the PTZ remote button

Click the button on the live view window.Displays PTZ camera icon.

Button	Function
	Remove the PTZ virtual remote control.
	Use to pan/tilt the camera.
	Go to Home preset position
	To adjust the camera zoom.
	To manually adjust the focus of a camera.
	Click the button to adjust manually the zoom, pan and tilt speed of camera which is supported speed function. In case of step function supported camera, click the button to adjust manually the pan rotation step.
	To manually adjust the iris of a camera.
	Displays the Selected Preset number. Click go button after select from the drop down list.
	• Add: Add the preset position number. • Delete: Delete the preset position number. • Set Tour: To set the preset tour. • Tour: To start a preset tour. • Group Tour: To start preset group tour.
	• Record: To start a pattern record. • Run: To start a recorded pattern.
	Displays the Camera OSD control window. Use these buttons to setup the Camera. This button does not appear on the screen if the login is other than the administrator.

	Displays the Information Area.

Note:

- PTZ Control can not use the specific function depend on the model.DVR is able to set the PTZ Control for OSD setting. Click [Enter] Button on the OSD Control and set the position using by PTZ arrow button and Iris +, – button.
- PTZ is supported to USB Joystick and it is recommended to use IP Desktop of the CH Products Company.(Web site: http://www. Chproducts. Com/13-28464-Home.php)
- The stream of Live view is depends on the screen format.
- In case of the model LNB7210 and LNB5110, it is used RS-485 communication, but PTZ control is not supported.

	HD profile only
	Most wide channel is connected HD profile, others are connected to SD profile.

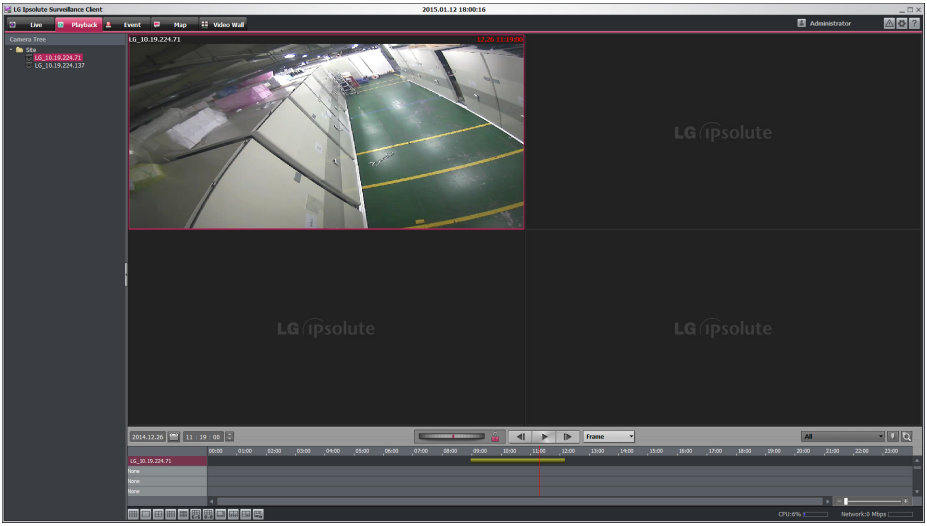
- When the Live view channel can not be connected to SD profile, it is connected to HD profile only.
- The Speed, Iris, Group Tour, Pattern and OSD option is not supported by device which is registered as ONVIF camera.
- The Go to Home preset position is not supported by device which is registered as ONVIF camera.
- If specific client in the multiple client connection status is using the PTZ function when other client try to use PTZ function, the specific client authorizes the PTZ control depending on the user authority.
- If the lower authority user try to control the PTZ while the high authority user is using the PTZ function, the system notifies the lower authority user that the high authority user are occupied the PTZ. On the contrary to this, if the high authority user try to control the PTZ while the lower authority user is using the PTZ function, the system beg to inform that the high authority user that the lower authority user are using the PTZ and the high authority user can get the PTZ control.

Save the text event

1. Click the mouse right button on the live view window and then select the [Save Text] option in the popup window. The [Save Text] window is displayed.
2. Enter the contents and then click the [Ok] button. The text event is saved at the selected device in real time. You can search the saved text event's comment from the [Description] option of [Event] tab.

Playback

You can playback the recorded data of a selected IP device. To start playback, you should check the recording server condition in the management tool.



1. Select the [Playback] tab.
2. Click the channel number and drag and drop to playback window position. If you select [Device] and drag and drop to a playback window then all channels are displayed.
3. Select the channel window you want to view.
4. Select playback start time by using the time line and time input column. When using time line to search a start time, use the zoom in/out icons for more detailed searches.
5. Click the date icon and select the date. The day is displayed in a green text when recorded data exists.
6. Start playback and adjust the speed up to x8 by using the Jog Control( ). You can backward and forward play to drag left and right. The Jog control can adjust the speed more than x1 only.
7. The Jog Control Rock button status is like as below.

Status	Description
Activate	Adjust the playback speed to drag and drop the Jog Control.
Deactivate	The playback speed is fixed to x1 speed.

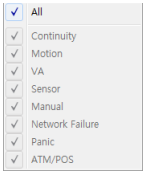
8. Jump to Frame Mode is set to forward or backward playback. Click Frame to move setting interval.

	Frame by Frame	Moves previous/next by frame from current time.
	Next 10 seconds	Moves previous/next by 10 seconds unit from current time.
	Next 30 seconds	Moves previous/next by 30 seconds unit from current time.
	Next 1 minutes	Moves previous/next by 1 minute from current time.
	Next 5 minutes	Moves previous/next by 5 minutes from current time.
	Event by Event	Moves previous/next by Event from current time.
	Bookmark by Bookmark	Moves previous/next by Bookmark from current time.

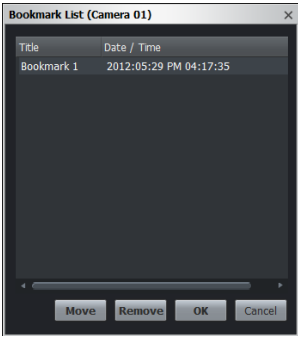
Note:

It must to perform after change the multi Screen Format view. If the recording server is DVR, although the playback is searched the current camera is not watching when the DVR camera move to previous or next frame.

9. Event Mode(Event) is function which the Timeline graph set to be displayed specific recording information only.



10. Click the [bookmark] button. You can set bookmark desired camera and time on the Timeline graph.



Note:

- When device and recording server is DVR, bookmark is not set but bookmark displays in the DVR's bookmark.
- If server is the Recording server, previous bookmark is deleted when modify the mode and date after setting the bookmark.

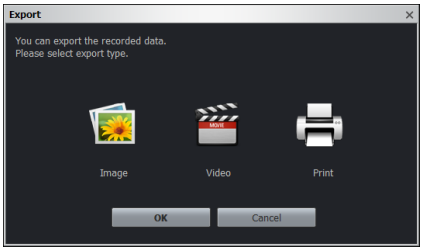
11. Click the [Search] button. Bookmark list of current device or DVR is displayed.

Note:

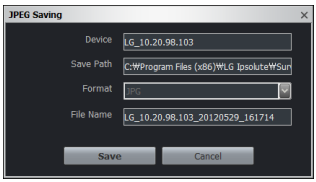
When you playback the recorded data, the data could be intermittent according to the PC or Network condition.

12. You can save the text event during playback. Select the desired screen and then click the mouse right button to select the [Save Text] option. You can search the saved text event's comment from the [Description] option of [Event] tab.

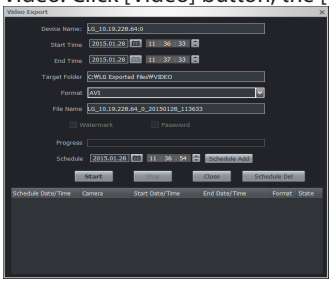
How to Export the recorded data



1. Click the Export button. The Export window will be displayed.
2. Select Image or Video.
3. Click [Save] or [Start] to save the export file.
   - Image: Click [Image] button, the [JPEG Saving] window is displayed. Click [Save] to save the export file. The image format is fixed to the JPEG format.



   - Video: Click [Video] button, the [Video Export] window is displayed.



     1. Set the [Start Time] and [End Time] to search.
     2. Select the one of file format on the drop-down list of the [Format]. You can set the password and watermark in case of the native format file.
        - Watermark: When you set the watermark function, you can find fabricated frame on the File Player.
        - Password: The encrypted files must enter the password to play on the File Player. To register the password, click the checkbox of [Password]. The password window is displayed. Enter the password and then click the Ok button.

3. If you set the schedule and then click the [Schedule Add] button, you can export the data as schedule. The registered schedule is displayed on the below list.
4. Click the [Start] button to save the file. When the progress is complete, the state option on the schedule list is changed to [Success].

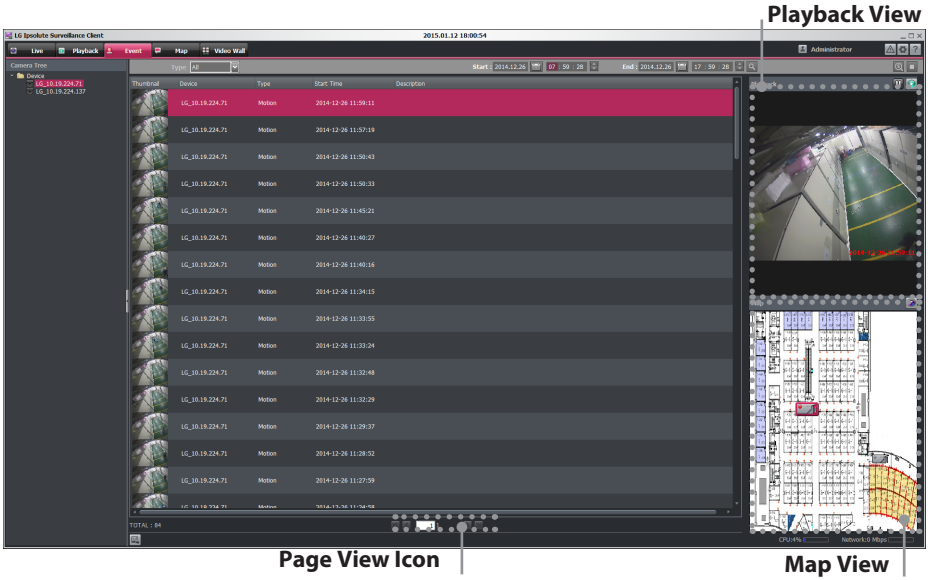
- Print: Click [Print] button to print the selected screen.

Note:

- The audio recording is not supported when the DVR Camera is recorded video on the recording server. Therefore, the exported file is not supported audio.
- The exported video file where is recorded on recording server can be run the File player only.
- Only the video data of playback time within 1 hour can be exported.

Event

You can search event log history.



- Playback View: When you select a log, you can see the playback in playback view. If you want to pause the playback, click the Button. If you want to control the playback in detail, click the Button.
- Map View: When you select a log, you can see the map in map view. If you want to see the map that is shown in new map tab, click the Button.
- Click page view icon to see the log search list.

Icon	Description
First	Go to the first event log page.
Previous	Go to the previous event log page.
Next	Go to the next event log page.
Last	Go to the last event log page.

- After event search success, when you mouse right click on the log list, you can see the [Go to Live] Context Menu. If you want to see the searched device in new live tab, you click the [Go to Live] Menu.
- If the Recording server checked in the IP Camera or DVR Search, Edit button which display the current page is activated.Enter the desired page and click enter to move the page.

IP Camera Event Search

1. Select the [Event] tab and desired camera on the device tree window. The device tree window displayed list of allocate device.
2. Select the device name on the device tree window.
3. Select the event type from the dropdown list of [Type] option. The event type is like as below.

Type	Description
Motion	The option searches video which motion event is occurred.
Sensor	The option searches video which sensor event is occurred.
VA Event	The option searches video which text event is recorded. If you select the text option, text input field is displayed and then the search word including video is detected all. If the input filed is blank, the option searches the video of text saved during the configured period.
All	The option searches all of the events.

4. Click the [Calendar] button and select the day and time.(The selectable days are displayed in green color.)
5. Click the [Search] button.
6. Use [Prev] or [Next] to see the previous or next log list. If you move to the beginning page of the log list, click the [First] button.
7. Click the Export button to download a text log file.

DVR Event Search

1. Select the search location of event to click the [Setup] button.

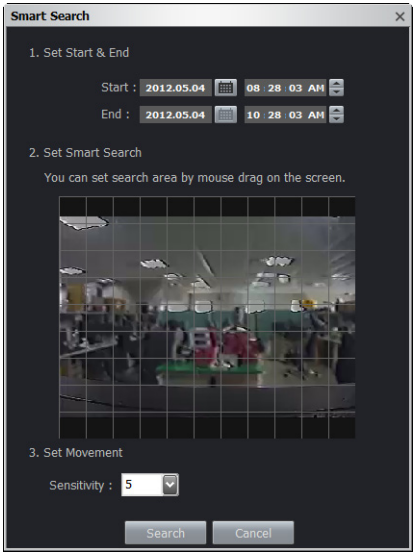
   1-1.If you want to DVR Search in Recording Server, check the [Recording Server] option on the [Client Setup > Playback > Playback].

   1-2.If you want to DVR Search in DVR, check the [DVR] option on the [Client Setup > Playback > Playback].

   Note:

   When you check the [DVR] option on the [Client Setup > Playback > Playback], DVR Search result has no thumbnail images.
2. Follow steps 1-7 described in "IP Camera Event Search".

Smart Search

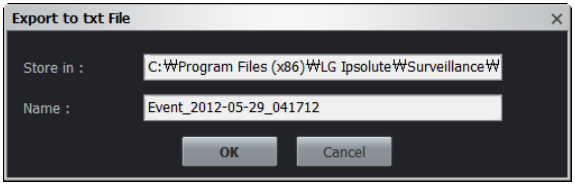

Smart Search
1. Set Start & End
Start : 2012.05.04 08 28 03 AM
End : 2012.05.04 10 28 03 AM
2. Set Smart Search
You can set search area by mouse drag on the screen.
3. Set Movement
Sensitivity : 5
Search
Cancel

1. Select the device name on the device tree window.
2. Click the button. The Smart Search window will be displayed.
3. Click the [Calendar] button and select the day and time.(The selectable days are displayed in green color.)
4. Set the search area by mouse drag in preview for smart search.
5. Choose the Sensitivity value.
6. Click the [Search] Button.
7. Click the button to stop the smart search.

Note:

DVR Search result has no thumbnail images.

How to Export the event log data



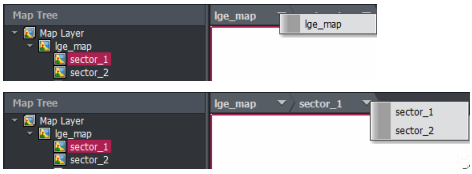
1. Click the Export button. The Export window will be displayed.
2. Click OK to save the text file.

Map

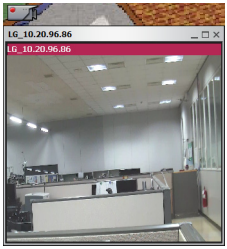
This function gives a visual overview of the device in your surveillance environment. You can add the map to drag and drop the device to the map view.

Icon	Description
Screen Format	Screen Format Change (1 Screen Format to 4 Screen Format)
Go to Live	See the device of selected map in new live tab.
Go to Playback	See the device of selected map in new playback tab.
Save Layout	Save Current Layout.
Previous map	Click this button to move to upper map.
Move	When it activated, you can move the map if map is zoom in.

- Map Navigation: Show the map path. When you click map navigation, context menu is displayed as map name of same level. Click the map to move desired map.



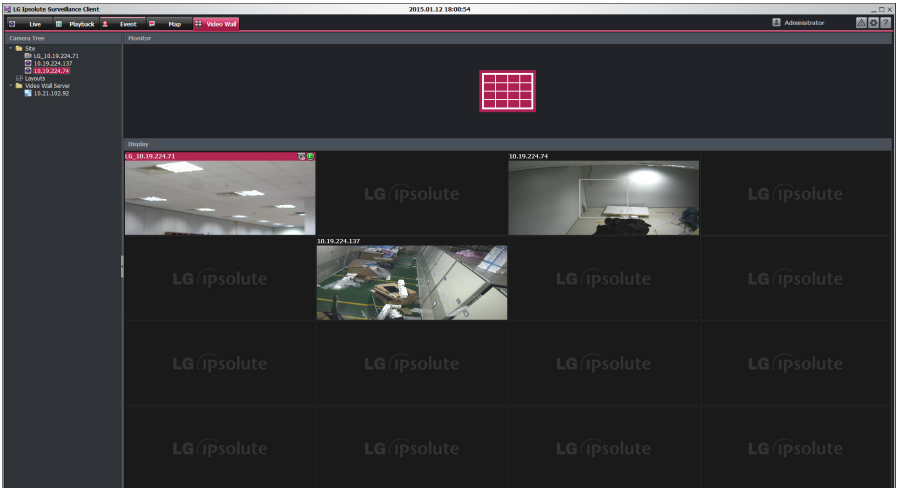
- Live Popup: When you double click the device in map or the event is occurred, popup the live streaming window.



- Event Popup: When the event is occurred, icon changed from to , and the live popup is displayed.Event is not occurred in a certain time, icon is changed from to
- Sensor Popup: When the sensor input is activated, icon is changed from to , and the live popup is displayed as device mapping.
- If you can zoom in or zoom out using by the mouse wheel, also you can zoom in or zoom out using by or button.

Video Wall

You can configure the Video Wall Screen to drag and drop the device to the display view.



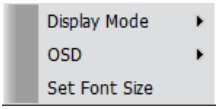
1. Select the [Video Wall] tab.
2. Double click a video wall server address from camera tree. The mapping monitor icons are displayed on the [Monitor] option.
3. Select an icon from the [Monitor] option.
4. Drag and drop a device to the [Display] channel screen.

   The [Display] option shows Video wall screen and you can configure the screen format to click the button.

   The selected icon is changed as the [Screen Format].
5. You can save the text event during playback in the [Display] option. Select the desired screen and then click the mouse right button to select the [Save Text] option. You can search the saved text event's comment from the [Description] option of [Event] tab.

Monitor Pop-up menu

Click the mouse right button on the icon of [Monitor] option. The monitor pop-up menu is displayed. You can configure the monitor setting.



- Display Mode: Select show or hide monitor.
- OSD: Select show or hide OSD.
- Set Font: You can set the font size of the selected monitor. If you check the [Auto] option, font size varies with the panel size regardless of font size.

Note:

You can confirm the configuration on the selected monitor only.

IP Utility

The IP Utility can automatically discover and display LG IP devices on your network. The IP Utility shows the MAC address, IP address, Model name and so on.

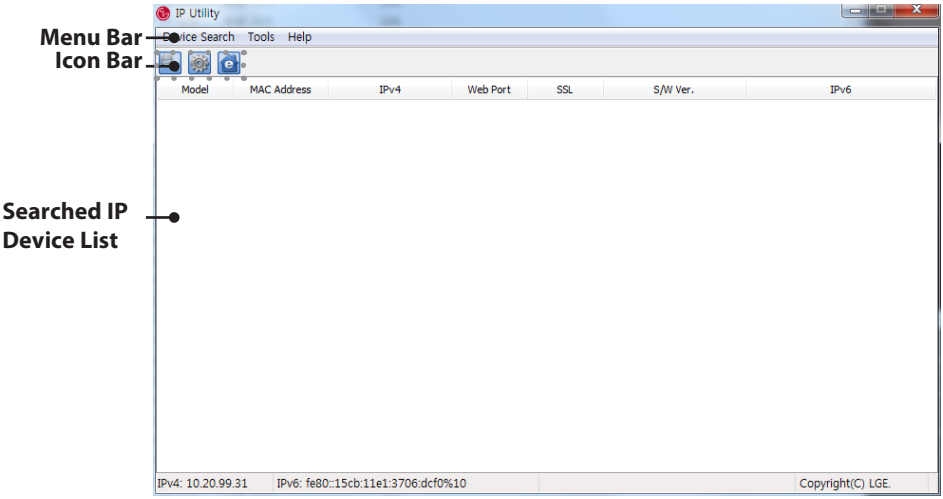
Note:

The computer running the IP Utility must be on the same network segment (physical subnet) as the LG IP device.

Starting the IP Utility

Run the IP Utility from your [**Start>Programs>LG Ipsolute>LVi510**].

IP Utility Overview



Menu Bar

Menu	Sub-Menu	Description
Device Search	Search	Click to discover the LG IP device. After a few seconds the found LG IP devices gets displayed in the IP Utility window.
	Exit	Exit the program.

Menu	Sub-Menu	Description
Tools	Connect Web Page	1. Select the LG IP device in the Device List. 2. Select the [Connect Web Page] option in the Tools menu. When accessing the selected LG IP device, the login window will be displayed on the screen. 3. Enter the user name and password. (Note that the default administrator user name and password are “admin”.) 4. Click the [OK] button and then the LG Smart Web Viewer is displayed in your browser. **Note:** You can also access the LG Smart Web Viewer as doubleclick the IP device in the Device list.
	Network Setting	1. Select the device on the searched device IP list. 2. Select the [Network Setting] option in the Tools menu. The login window will be displayed. 3. Enter the administrator user name and password. 4. Click the [OK] button and then the Device Network Settings window is displayed. **Device Network Settings** *IPv4 address status* > DHCP(Automatic): Select this option when a DHCP server is installed on the network to allow IP address assignment. With this setting, the IP address is assigned automatically. > Static(Manual): Select this option when you set the network configuration manually. - IP Address: Enter the static IP address of the device. - Subnet Mask: Enter the subnet mask IP address. - Gate Way: Enter the gateway IP address. - DNS Server: Enter the Primary domain name server that translates the host names into IP address. - Secondary DNS Server: Enter the Secondary DNS server address. *IPv6 address status* > Enable: Click the check box if you want to use the IPv6 address.

Menu	Sub-Menu	Description
Tools	Network Setting	> Mode - Manual: Select this option when you set a fixed IP address manually. - Basic: Select this option to allow IPv6 address assignment based on the Mac address. - DHCPv6: Select this option when exist a DHCPv6 server in network. *Port & Encryption* > Encryption(SSL): Select the HTTP or HTTPS option for security. > Web Port: The default HTTP port number (80) can be changed to any port within the range 1 025 to 65 535. 5. Set the options and click the [Apply] button to confirm your settings. 6. Click the [Close] button to exit the window.
	IP Setting by ARP_ PING	1. Select the LG IP device in the Device List. 2. Select the [IP Setting by ARP_PING] option in the Tools menu. The login window will be displayed. 3. Enter the administrator user name and password. 4. Click the [OK] button and then the IP Setting by Serial number window is displayed. 5. Enter the IP address and click the [Apply] button to change the IP address. **Note:** You can also access the tools menu. Click the right mouse button on the IP device in the Device list.
Help	About IP Utility	Displays the IP Utility Information.

Icon bar

Icon	Description
Search Icon	Click to discover the LG IP device.
Network Setting Icon	Select the device and then configure the network settings.
Web Page Connect Icon	Click the button to connect the LG Smart Web Viewer.

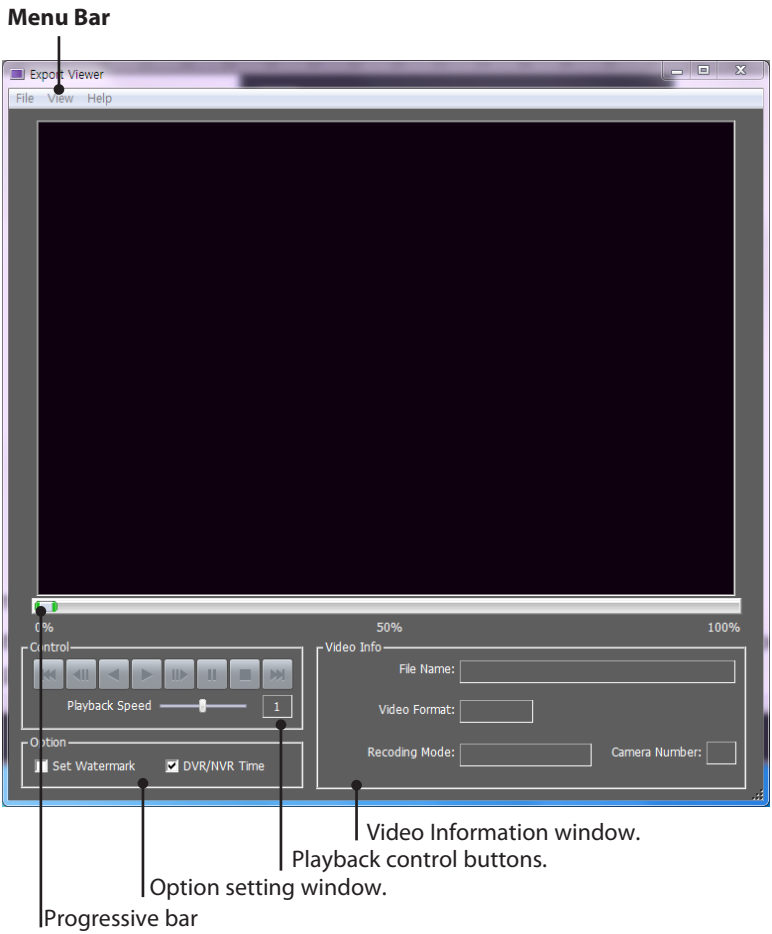
Note:

- The searched devices as the Onvif method is not supported Mac address and S/W Version display.
- If you search the device by Onvif method, network setting is unavailable through the Onvif method.

Export Viewer

You can play back the exported data on the PC using this program. Run the Export Viewer from your [**Start>Programs>LG Ipsolute>LVi510**].

Export Viewer Overview



Menu Bar

Menu	Sub-Menu	Description
File	Open	Opens the data file.
	Print	Prints the current playback image.
	Save to JPEG	You can capture and save the current image in JPEG file format. 1. Play the recorded data. 2. Pause the playback at a desired point during playback. 3. Select this option. The JPEG Export window is displayed. 4. Set the options. 5. Click the [Save] button.
	Exit	Exits the program.
View	Language	Select the language for Export Viewer program.
	Video Size	Select the video size of the data file.
	Date Format	Select the date display format.
Help	About Export Viewer	Displays Export Viewer information.

Playback control buttons

	Jumps to the beginning or end of the file.
	Click this button repeatedly to play frame-by-frame playback in reverse.
	Click this button to play reverse or normal playback.
	Click this button repeatedly to play frame-by-frame playback.
	Pauses playback.
	Stops playback.

Option Setting window

- Set Watermark: The warning window will appear with watermark option, if the file which is in playback differs from the file that is originally recorded.
- DVR/NVR Time: If you check this option, the time of the DVR/NVR time zone is displyed during playing back the exported file . If not, the time of the client time zone is displayed.

Video Information window

- File Name: Displays the file name.
- Video Format: Displays the video type of the data.
- Recording Mode: Displays the save mode of the data.
- Camera Number: Displays the camera channel number of recorded data.

To play the exported data

1. Run the LG Export Viewer program on the PC or in the Export Viewer folder of the external USB device. If you insert the exported data CD or DVD disc, the export viewer program run automatically.
2. Select [File] > [Open]. The open window is displayed.
3. Select the root directory of the USB device and search&select the desired file. An example of playable file format is “Channel name_date_time.exp”.
4. Click the [Open] button. The selected data is played back automatically.
5. Select playback speed. Use the slider to select the playback speed.
6. Click the [STOP] button to stop playback.

Note:

The exported data with password cannot preview the image.

When you play the exported data with password, logon screen appears. To unlock the data, enter the password.

To play the AVI file on a media player

- The exported data of [AVI LG] file format is always displayed OSD. To playing AVI LG file, you have to install the LG DVR Codec.
- If you select AVI file format, it can play on any media player. But OSD may not be displayed on some media player.
- It is recommended that the exported AVI file play on the Windows Media Player.

Progressive bar

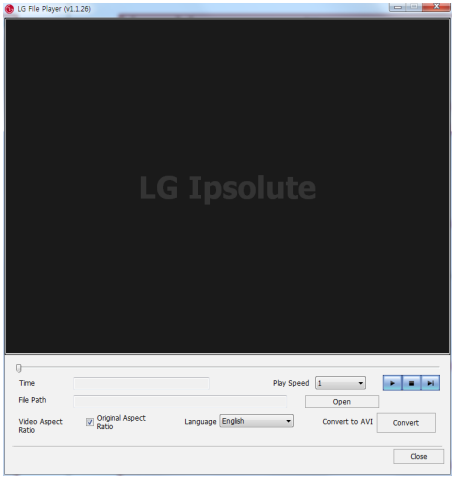
You can search the image directly using the progressive bar.

Click and hold the Slider bar and move to the other point you want and then release it. Or, Click the point on the progressive bar you want to playback.

LG File Player

You can playback from the recording data in the Storage device or in the FTP server.

1. Run the LG File Player from your [**Start>Programs>LG Ipsolute>LVi510**].



2. Select the language from the drop down list of language option.
3. Click the [Open] button. The open window is displayed.
4. Find and open the DAT file.
5. Select the play speed from the drop-down list.
6. Use the control buttons to play the file.

	Starts playback.
	Stops playback.
	Click this button repeatedly to play frame-by-frame playback.

Note:

- You can search the image directly using the slide bar in stop mode. Click the slide bar and move to the other point you want and then release it. Or, Click the point on the slide bar you want to playback.
- The slide search is available when the DAT file and INFO file exist in the same folder.
- If you convert the exported file extension from DAT file to AVI file, click the [Convert] button.
- The exported data with password cannot preview the image. When you play the exported data with password, logon screen appears. To unlock the data, enter the password.
- The file including password or watermark can not convert to AVI file using by File Player.
- To play the file logged on password, you should enter the correct password.

7. Click the [Close] button to exit the window.

4
Reference

Troubleshooting

Symptoms	Resolutions
Use the SOAP/XML Web services to exchange each server and configure information.	• Port number of the Management Server is 9100. • Port number of the Recording Server is 9101. • Port number of the Streaming Server is 9102. • Port number of the Video Wall Server is 9103.
Surveillance Client performs TCP connection by receiving the surveillance image through the recording server and the streaming server.	• It is used port number 554 for the request of recorded data and the playback as recording server. • It is used port number 555 for receive the live video as streaming server. • It is used port number 9556 for receive the monitor control as video wall server. • It is used port number 9557 for receive the status event as management server.
The Video Management System does not activate properly	• Check your PC system. Please use the recommended PC system with Video Management System program. • Do not use other applications with this Video Management System program. • Use the graphics card in your computer with the latest driver.
"Can not connect to check the status of the server" of error message is popped up and then the server cannot use on the Management Tool.	If you use the DHCP or change the IP address as your likes, this popup may be occurred. To use the recording server and the streaming server normally, you must use the static IP address.
Repeat error message "Unable to connect to device"	Reduce the CPU usage and Network bandwidth using the device setting for each device. Reduce the resolution, increase the compression setting and lower the frame rate.

<table>
<tr><th>Symptoms</th><th>Resolutions</th></tr>
<tr><td>Connection refused, server is not accepting any connections. Connection succeeded but unable to the video</td><td>Check that internet and security firewall are not blocking a connection to the device.</td></tr>
<tr><td>The Video Management System doesn't run “Can not execute the Video Management System. Please update the Graphic Card Driver to recent version.” with a message from the start.</td><td>The Graphics card driver is more than 6 months old. For Video Management System to run properly, the graphics card in your computer has been updated with the latest driver. To find out what graphics card is installed in your computer, a diagnostic program called dxdiag can be used. DirectX version is 9.0 or higher.

In Windows Vista, Windows 7

1. Select [Start].
2. Enter “dxdiag” in the Start Search field.
3. If a prompt appears for the Diagnostic Tool, click [Yes].
4. Select the Display tab. The name of the Graphics card appears under Device.
5. If the “Direct3D Acceleration” and “DirectDraw Acceleration” options are not enabled, change them to enable.

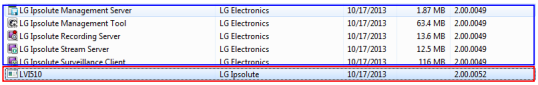
To download the latest driver you need to visit the graphics card manufacturer's web site. Some of the more common ones are
• nVidia - www.nvidia.com
• ATI - www.amd.com
• S3 - http://www.s3graphics.com

To upgrade the graphics card drivers on your computer:
1. Download the driver from the manufacturers web site to your hard drive
2. Make sure that there are no other programs running on your computer.
3. Uninstall the existing drivers.
4. Run the installer and follow the wizard to install necessary files.
5. Reboot to activate the change.</td></tr>
</table>

Symptoms	Resolutions
Video Streaming Problem	• If the client PC's are unable to access the multicast stream, check with the system administrator for the use of a valid multicast address or check if the router is supporting multicasting. • If the images appear to have white of gray stripes on it, upgrade the Video graphics driver on the client PC to the latest version. • If two different video streams were mixed in one channel, check they have same multicast address.
UI is not drag & drop	Reduce the CPU usage and device connection number. Disconnect the device or reduce the frame rate.
Error message was shown except authentication deny while loading the device setup	Check the device status such as IP configuration, network connection and the network bandwidth usages of the Video Management System.
Suffer a long time to load timetable data and to play video/ audio data from the recording server (NAS)	• Check that the usages of recording server (NAS) meets it's requirements and the network bandwidth usages. • At the same time while recording video/audio data, the reading of it may cause delay.
Fail to read Timetable data from the recording server (NAS)	Check network drive setting for playback in the Recording Server Settings of the Management Tool or physical network line.
The warning message is displayed when you access the device setup menu of the connected camera.	If the Network encryption option is set to HTTPS, the warning message is displayed. You should install the certificate or change the Network encryption option to HTTP to solve the problem. You can install the certificate as shown below. 1. Check the SSL option on the [Tools>Add/Edit/ Remove Device] menu. 2. Access the device setup menu of the connected camera. The warning message will be displayed. 3. Install the certificate to your computer following the on-screen instructions.

Symptoms	Resolutions
Some recorded data do not exist.	If you had changed the capacity for the data recording to lower capacity than pre-recorded data size, the recorded data was deleted apart from assigned capacity by overwriting. Before you change the capacity for the data recording, check the current recorded data size and then back up the data or you should assign the bigger capacity than the recorded data size.
Device Search_ Add/Edit/Remove	*There is no Search device.* 1. Check the Device Status. ex) network connection , booting operation of device and power connection of device. cf) network condition : Client(VMS installed PC) network and device network are the same local area. 2. Check the Client Status. ex) check the network connection or check that a firewall is not blocking a "Bonjour". If firewall refused "Bonjour" or "UDP Packet" , please set to the accept "Bonjour" and "UDP Packet". 3. Not supported "port forwarding". ex) Unique value of device is only IP Address in VMS Device Search. So VMS is not supported "Port forwarding". *Too long Device Search time* Check the CPU Usage. If CPU usage is over 90%, all of operation of VMS couldn't normal performance. *Can't manual registration of device .(not search registration)* Manual registration is possible only connectable device. Check the device information for register condition. Ex) IP Address, User ID , Password. *There are same IP address in searched results.* It is IP Conflict. If the LG network device is set with a static IP address and if the DHCP option is set then there may be ip's same as the network device and other network partner. Hence set the static ip address to 0.0.0.0 to resolve this conflict.

Symptoms	Resolutions
IP Utility	*There is no Search device.* 1) Check the Device Status. ex) network connection , booting operation of device and power connection of device. cf) network condition : Client(VMS installed PC) network and device network are the same local area. 2) Check the Client Status. ex) check the network connection or check that a firewall is not blocking a "Bonjour". If firewall refused "Bonjour" or "UDP Packet" , please set to the accept "Bonjour" and "UDP Packet". 3) Not supported "port forwarding". ex) Unique value of device is only IP Address in VMS Device Search. So VMS is not supported "Port forwarding". 4) There are same IP address in searched results. It is IP Conflict. If the LG network device is set with a static IP address and if the DHCP option is set then there may be ip's same as the network device and other network partner. Hence set the static ip address to 0.0.0.0 to resolve this conflict. *Can't network setting.* 1) For network setting, Client(VMS installed PC) network and device network have to the same local area. 2) Check that a firewall is not blocking a port number 81. "81 port" is used WSDL communication for network setup. Please set to the accept "81 Port". *Can't IP setting by ARP_PING of device.* 1) For IP setting by ARP_PING, client IP address and device address is the same local area .For example, If the client IP address is 10.164.47.ooo , device IP address must 10.164.47.xxx . That is ARP_PING SPEC. 2) Check the device setting of Enable ARP Ping in VMS_RemoteSetup. If this setting is not checked , ARP Ping is disabled.

Symptoms	Resolutions
The warning message is displayed when you access the device.	If the Network encryption option is set to HTTPS, the warning message will be displayed. You should install the certification or change the Network encryption option to HTTP to solve the problem. You can install the certificate as shown below. 1. Log-in the device. 2. Install the certificate to your computer following the on-screen instructions.
Video Management System Live view has white screen, after the window's sleep mode & hibernate mode.	The Video Management System does not support window's sleep mode & hibernate mode. To resolve this problem, please restart the Video Management System.
The Video Management System cannot remove or reinstalling after updating version 2.00.0052 or higher.	 Check the Program and Features on the Control Panel. Because it regards previous installed files (blue box) and updated file (red box) as discrete files. If you install the Video Management System version 2.00.0052 or higher, delete old version files like as blue box above.
The script error is occurred from the [Management Tool> Setup>Web Client>Audio&Video] option.	Click the [Delete…] button on the [Internet Options>General tab>Browsing history] to delete the temporary files. And then, restart the program after click the [Restore advanced settings] and [Reset…] button on the [Internet Options>Advanced tab].

Symptoms	Resolutions
The IP Utility program does not run on the Windows Server 2008.	Install the [.Net Framework], [Telnet Server] and [Telnet Client] from [Control Panel > Programs and Features > Turn Windows features on or off > Features > Add Features] option. And then reboot the system.
The icon image among the video management system programs is not seen though you update the program version 2.00.0051 or higher.	Restart the PC. If the icon image is not visible still, right clicking the icon. And then, select the icon from the [Properties > Shortcut > Change Icon…] option.
When device are connected by UDP mode, "Connecting…" state lasted.	Connect the device by TCP mode. UDP method's data transmission speed is faster than TCP method but the data may not be transmitted intactly depending on network status.
The Security Warning message is displayed continuously.	The warning message is displayed in the case of below: • If you register the IP device by "https://" • When you try to connect the IP device which is registered by "https://" to the Surveillance Client. The solution is like as below: 1. Go to the [View certificates] and click the [Install certificate]. 2. Click the [Next] and select the [Place all certificates in the following store] option. 3. Click the [Browse...] button. 4. Select the [Trusted Root Certification Authorities] folder and then close the window. 5. Click the [Next] button and finish the import certificates. The warning message is displayed. 6. Click the [Yes] button.

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